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ALBANY
MEDICAL ANNALS:
A JOURNAL
OF THE
Medical Society of the County of Albany.

VOL. VII.

1886.

PUBLISHED BY A COMMITTEE OF THE SOCIETY.

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ALBANY, N. Y.:
BURDICK & TAYLOR, PRINTERS AND PUBLISHERS,
481 BROADWAY.

ALBANY
MEDICAL ANNALS:
A Journal of the Medical Society of the County of Albany.

Vol. VII. JANUARY, 1886. No. 1.

VACCINAL ERUPTIONS AND OTHER ABNORMALITIES OF VACCINATION.*

BY F. C. CURTIS, M.D., ALBANY.

In the early part of the present year a gentleman and lady arrived at New York, by one of the German lines of steamers, on their return from an extended wedding journey. Continuing on their way home to a western city, they took a Pullman car on the West Shore road, and were carried in it directly through to Chicago. The lady was taken ill on the way, or perhaps before starting; not sufficiently so, however, to prevent her continuing their journey. At a Canada town a physician was procured, who prescribed for her and thought she was developing pneumonia. In Chicago a diagnosis of small-pox was made out; she was removed to a proper place, and care was taken, it is said, to prevent the further spread of the disease. The first intimation received hereabouts of the case was the development of the disease in the person of a brakeman at Syracuse. He had been one of the train men and stationed on the car in which this lady was traveling. Dr. Mercer, health officer at Syracuse, met the emergency with the greatest energy. He found that a considerable number had been exposed to this case, and he quarantined them all until after the period of incubation had passed, vaccinating every one who had come in contact with it. But

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*Read before the Medical Society of the County of Albany, Wednesday evening, December 9, 1885.

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one other case developed, unfortunately proving fatal. He telegraphed the State Board of Health, and I kept watch at Coeymans Junction, between which place and Syracuse the gang of train men had their trips. No cases developed here, nor elsewhere in this state.

The car on which the primary case developed was sent from Chicago over the Grand Trunk road, and with it the men in charge of it. Not long after, one of them developed the disease at Montreal, and from it has spread the fearful epidemic which has caused more than 3,500 deaths in that city alone, which still exists and bids fair to continue for yet a long time before it has expended itself there, and which has caused such apprehension of spreading over Canada and the Northern States that extraordinary efforts are being made to prevent it gaining a foothold elsewhere. Fortunately the popular mind has been so healthily aroused that these efforts have been for the most part successful, and in the few cases where it has extended into this state it has been prevented from spreading. One such case, imported from Montreal, appeared here in Albany, and several cases followed—one proving fatal—in this neighborhood, but the management of the health officers has been effective to control it, and it has been reported that there are now no cases of the disease in the city. The immunity which has been secured, especially at a season when the disease is more likely to spread, and the more, also, since vaccination has been so little thought of for the past few years, is quite remarkable, and speaks well for the care for its prevention which as been exercised.

How marked is the contrast between this outbreak and those which occurred in the early history of this locality. Small-pox was then the most grevious of all diseases in its ravages. In 1613 it broke out here, and twelve of the slender population of Beverwyck died in one week, and a thousand of the the Iroquois Indians perished in the course of the epidemic. For two months Connecticut maintained a quarantine against the New Netherlands. Repeated outbreaks of it occurred, and sometimes it is said to have ceased only for lack of material to work upon. In 1730 inoculation began to be quite generally practiced, and it is said to have considerably dimished the mortality. Our present immunity is due, to use the words of Dr. Thacher, our early medical historian, "to the glorious discovery of the vaccine disease, which renders the human system insusceptible to small-pox, and which was announced in 1799 in our newspapers and in the *Medical Repository* of New York." We may well call it, along with opium, a *donum Dei.*

Probably there were never so many people vaccinated at one time in this city as there have been within the last two months. From inquiry addressed to some of the principal purveyers of vaccine virus I have estimated that 20,000 persons have been vaccinated here this season. Dr. Balch reports 5,628 vaccinated by the city, and 3,000 points distributed to other physicians.

The purpose of this paper is to make reference to some of the abnormalities which have been observed in connection with vaccination, and which this large amount of experience has given us the opportunity to see to an unusual degree. It is worthy of note first, however, that there has probably never before been so universal a use made of virus direct from the cow. The old fashion of using the crust or scab from the infant arm has pretty much come to an end. There is some good and some evil connected with this. No doubt the popular prejudice against humanized virus has had much to do with this, and probably the readiness to submit to vaccination that we find has been fostered by the accessibility now to the direct bovine stock; this has been a decided advantage. More than this, there is no doubt in my mind that much inefficient vaccinating has been done by reason of the use of imperfectly developed vaccine in the child and from the employment of bits of scab carried in the pocket-book for an indefinite length of time. At the same time, since bovine virus has become an article of merchandise, it has been thrown open to all sorts of people to go into the business, with the result that much that is untrustworthy, or worse, is without doubt offered for sale. Nothing should be produced with more jealous care. There is no reason, too, why some diseases of the cow should not be transmitted, as much as those of the human being. It is not known, as far as I am aware, that any have been transmitted in the process of vaccination, but it is a remote possibility, also, that human diseases are, with any decent care, thus transmitted. It is possible, too, that purveyors may not derive their stock from true vaccinia. The disease is a rare one occuring in the cow. It is doubtful if it ever occurs, except from contagion from cow to cow, although once developing in a herd it may last for years. Spontaneous cases, so called, are to be looked upon with suspicion always. One of the last enterprises of the late Dr. Elisha Harris, was to find an original case of the disease, with the aid of Prof. James Law, and, although a number of alleged cases were looked up, none proved to be genuine. It may not be generally known that a society in England, called the Jennerian Society, has existed from the days of Jenner, the object of which is to perpetuate virus received direct from his hands. Every week since the organization, vaccination of human subjects has been done, transmitted from one weekly generation to another down to the present time, never reverting to its original source in the cow. This virus can be procured in this country of the well-known sanitarian, Dr. Snow, of Providence, who has kept up the same weekly transmission. It has lost none of its protective virtue; but it is worthy of note that, in the few cases I have seen, it develops more mildly and produces a crust that is considerably smaller in diameter than other virus. The fact, if it is a fact, opens up an interesting subject as to the breeding of a special type in a disease kept strictly pure to its original case without admixture.

One of the principal abnormalities of the evolution of vaccinia is the development of a universal eruption instead of the usual cutaneous lesion at the point of insertion. A considerable number of such cases have occurred here this fall, several of which I have seen.

There is not a great deal in the literature of vaccination, which is certainly very profuse, on this subject. Reference is made to erysipelas, which is well known to sometimes follow the procedure of vaccination, and also to eczema, which is in like manner liable to be set up in susceptible individuals, and, as well, to the syphilitic lesions which are remotely liable to follow, in the chance of its inoculation along with virus thus impure. But the general eruptions have probably not been so often noted in the past, for the reason of the present almost universal use of bovine lymph, which is attended with rather greater severity of constitutional symptoms. These eruptions are undoubtedly due to the constitutional effects of the virus, not to the local irritation. They cannot be regarded as generalized vaccinia; this is said to have been observed in rare cases, a general eruption over the body of vaccine pocks taking place. Some of them have been due to the transfer of the virus by scratching; but, aside from this, it is said that constitutional infection has produced generalized eruption.

Three or four varieties of eruption have been described, of which a description is given in Robinson's recent book on dermatology. The usual time for their development is about the eighth or tenth day, when the areola forms and constitutional symptoms show themselves; but they may come earlier. The first and much the most common is the roseola. Of this I have seen numerous cases this fall. It makes its appearance on the eighth or tenth day, is well marked for two or three days, and then quickly recedes; when intense, being accompanied with slight desquamation. It is usually attended with slight febrile disturbance. In lighter cases it is a scarlatina-like efflorescence. When more intense, it is of darker color, the skin being mottled and the eruption resembling measles. It may begin as a macular eruption and spread out into diffused efflorescence. A very intense case I saw with Dr. Nellis. The child, eight years of age, was vaccinated October 28. On returning from school November 3, he complained of pain in the vaccinated arm. During the night he was feverish, and in the morning an eruption, universal over the body, was discovered. When seen in the afternoon, the body was thickly covered with slightly raised papulo-macules, appreciable to the touch, over extensive areas confluent, of a dusky-red color. The limbs were more sparsely covered. I have noticed that it is often, as in this case, more abundant about the joints. Many of them were of millet seed size, but most were the size of a split pea. There were but few on the face. The pulse was 125, tongue coated, throat injected, voice and cough a little husky, and the eyes suffused. In a couple of days it faded quickly away. The vaccine sores on the arm were normal. This is the natural course, but most cases are much less intense than this. Sometimes small vesicles rise over the patches, but these soon disappear.

Another form of eruption, somewhat different from this, is one resembling erythema multiforme. It is a symmetrical eruption, more likely to appear on the extremities, large, flat, red macules or papules, sharply limited and œdematous from the larger amount of effusion. They undergo change more slowly. This eruption may appear as early as the second day after vaccination, but more often on the eighth and ninth day.

A modification of this is an eruption differing in no respect from urticaria, and attended with the usual tingling sensation. This is more likely to come on soon after vaccination. It may appear on the mucous surface as well as the skin.

Vesicular eruptions may develop with vaccinia. The vesicles are small, limited to the vaccinated arm, or distributed over the body and occurring with the development of the vaccine vesicle, or in succession of crops. They very soon dry up and scale off, never showing a disposition to umbilicate. They do not contain vaccinal virus, and are simply of the irritative character of the simpler eruptions.

Bullæ, or larger vesicles, are said, by Robinson, whose authority I am following, to develop on the second or eighth day after vaccination. They are "isolated, and have thin walls which soon rupture, leaving a light scab." The eruption bears a close resemblance to chicken-pox. The contents may become turbid, and they may dry up without forming a scab.

Finally, an eruption like purpura may follow vaccination, hemorrhagic in character. The petechiæ come out on the body at the time of highest development of the vaccinal pocks, and last for two or three weeks, when they fade away. This may appear in children previously in perfect health. These constitute all the general cutaneous disturbances that I have been able to find note of, occurring after vaccination and due to it.

It is well worthy of note here that there are certain abnormalities of the vaccine pock itself. Every one who has done much vaccination this fall has seen, instead of the normal rosy papule, soon becoming vesicular, a red elevation the size of a large pea, or twice that size, form at the place of inoculation. It remains a solid papule, never becoming vesicular, and no lymph will follow a puncture of it. The characteristic areola does not form around it. The red nodule is indolent in character, and may remain for weeks before it undergoes recession. It is the so-called raspberry excrescence, and has been observed since the early days of vaccination. No doubt it is more likely to follow the employment of virus direct from the cow, for it is certainly much more frequently observed of late than formerly.

I have myself seen a large number of cases recently. As a curious fact, I don't know as anything more than curious, I noted that in every person I vaccinated from one lot of virus, who reported to me a second time, the vaccination took this form. I think it is more frequently seen in revaccinations and in adults. I do not recall now a case of its occurrence in young children. There is no satisfactory explanation of it that I am aware of, but it is undoubtedly an abortive vaccination, and is not to be considered protective, for a subsequent vaccination will succeed. It leaves very little cicatrix, and any fluid that may be obtained from it will not produce a vaccinal sore in another person.

Other irregular manifestations of vaccinia are seen, which must, in like manner, be regarded as ineffectual, at least after primary vaccination. One of the commonest that we see is where an irregularly shaped vesicle forms before the normal period of incubation has elapsed, on the second day, which soon dries up and the scab falls off, leaving simply a stain or pigmented base behind it. It has not extended deeper than the epidermis. In other cases the vaccination runs a regular course, but instead of progressing regularly, ulceration takes place under the scab, which, as the latter is removed, shows itself in a deep, punched-out excavation, with abrupt edges and an irregularly granulating base. This occurs independent of traumatism or depraved states of the system. Both these varieties are common with vaccinations, where they are perhaps abortive attempts at vaccinia, but in primary vaccinations they are to be regarded as ineffective.

It is the common impression of physicians that bovine virus is more energetic in its action than the humanized. This is certainly true as regards secondary vaccinations, but in primary it is for some reason not so. There is probably an intensifying of the normal symptoms, but I doubt if the ugly sores, often lasting a long time, that are sometimes seen, follow the use of bovine lymph as often as they do the use of humanized crust. With the latter, which, in addition to dried lymph, also contain epithelium, blood and pus corpuscles, and perhaps also the sloughed tissue of the corium, there may be some reason to anticipate this. And it might follow the use of improper bovine quills. I have often seen these that, to the most casual inspection, were bloody. The lymph was not properly collected in them. It is known that the vesicle on the calf yields but a very scanty flow of lymph, nothing like as much as flows from the child's pock. Any of them by chance incised so as to yield blood will be rejected by the careful collector. But not only these are employed by the irresponsible purveyor, but they even force the flow by putting clamps on each pock and squeeze out all the fluid possible, making the calf yield several thousand points. Of course all such merchandise is to be shunned. The bulk of the virus sold here this season has been unexceptionable, and the ill effects of vaccination have, as far as I can learn, been almost entirely wanting. But with some individuals, from dyscrasia, or preëxisting cutaneous disease, the slight injury to the skin and the sequent action of the virus will produce dermatitis, and even phlegmonous inflammation. Often, I have no doubt, the operator produces unnecessary traumatism in vaccination.

I will not, however, take time to go into the subject of the various ill effects liable, in a remote degree, to follow vaccination, which properly forms no part of this paper. In spite of them, I always seize every opportunity to advocate the proposition that every unvaccinated person is to be regarded as an enemy of the human race, and that every one who tries to weaken the force of this proposition, either by selling bad virus, or worse, by preaching anti-vaccination theories, ought to be locked up safely in either a mad-house or a penitentiary. I say, with Curschmann, "to neglect vaccination on account of its possible dangers, is as wise as to refuse to travel by the railroad for fear of possibly running off the track."

I will close with the note of a case of what was undoubtedly aborted variola. A young lady, 16 years of age, living next door to a case of small-pox, was vaccinated ineffectively with bovine virus the last of October. It was repeated two weeks later; this time taking. November 17 she was taken with all the symptoms of initiatory fever of variola, and on the third day a papular eruption appeared on the face and wrists; the fever subsiding. I saw her on the evening of the 19th. The papules had the shot-like feel, and were scattered over the face, back of hands and wrists, shoulders, and a few on the body. Next day they increased in size a little, and a few became almost invisibly vesicular. They never developed beyond this, but continued, without change, for two weeks, slowly resolving, light crusts forming on the few that advanced to slight vesiculation. She was not confined to bed more than three or four days, but was kept in quarantine, and the house was fumigated after she recovered. The vaccination sores did not subside, but continued through the modified course followed in most vaccinations. The case shows the value of vaccination even after the time has elapsed after exposure for it to develop, so as to be fully protective. I find but little reference in the literature of small-pox to the subject of aborted variola, if this was a case of it, which I do not doubt.

The following are the statistics of 100 vaccinations, by Dr. George F. Brooks, at the State Board of Health rooms, of officials, clerks and employees in the capitol building. The statistics were preserved under the following heads: Name, Date, Number of Cicatrices (if previously vaccinated); Same Well Marked, Good or Fair; Primary Vaccination; Results: Perfect, Partial or Failure: Constitutional Symptoms.

The results show that of those having 4 scars of former vaccination there were two cases, one of which took perfectly, one failed; 4 cases with 3 scars, 2 being perfect in result, 1 partial and 1 failure to take; 27 cases with 2 scars, 20 taking perfectly, 5 partially and 2 failing to take; 62 with 1 scar, 50 taking perfectly, 12 partially and none failing to take. There were 5 primary vaccinations, all of which took perfectly. Of the entire 100, 78 per cent. were perfect, 18 per cent. partial and 4 per cent. failed. The vaccination was done with virus, especially selected as regards freshness, from Dr. Taylor, of the New York City Board of Health Vaccine Department. The result is unusual in vaccinations.

DISCUSSION.

Dr. **Lorenzo Hale** spoke of the folly of those persons who, in the face of the Montreal epidemic, have incorporated in this state an "Antivaccination Society," and who deliberately prefer the contagious, deforming and fatal small pox to the life-saving vaccine disease, which is usually devoid of untoward symptoms, and in which the ill effects, if present, are, as a rule, brief and vastly less virulent than the manifestations of small-pox.

He mentioned several cases of general eruption, with more or less constitutional disturbance, following recent vaccinations with bovine virus on ivory points. After the ninth day there was usually a rapid amelioration of symptoms. In one child, two years old, vaccinated on the calf of the leg, there appeared in about a week three blotches on the thigh and groin, measuring as much as one and a half by three inches, apparently of a hemorrhagic character; after a few days the stains had faded into a bluish, and later to a yellowish-brown, tint.

He had usually vaccinated each child in one spot only, but now, since listening to the statistics presented by Dr. Curtis, he was an enthusiastic advocate of vaccination in two places.

The question arises whether the constitutional disturbance after vaccinating in two points will be greater than if the vaccination was done in one place only. We sometimes see a large, deep ulcer after a single vaccination. Will the double excavation after double vaccination be twice as serious as would have been the case if there had been one vaccination only, or can we believe that the total amount of ulceration in the two conditions will be nearly equivalent? It seems probable that the symptoms will be much less severe after multiple vaccination, because of the increased vent and space for local elimination.

Dr. F. **Townsend** said that the subject had been of interest to him. He had vaccinated within the last month at the asylum and in his private practice about three hundred. He had noticed in a number of cases where there were eruptions that ivory points had been used, and in no case was there an eruption following the use of the quill. Another symptom following the use of the points was enlargement and tenderness of the glands in the axilla.

Dr. S. A. **Russell** had noticed the raspberry excrescence following a number of vaccinations.

Dr. A. **Vander Veer**: I do not know the experience of other members as to the use of the quill or point, but, for some reason, I have had better success with the quill

In regard to the humanized crust, the late Dr. Van Olinda, of our Society, made use of the humanized crust altogether, and supplied not only practitioners in this city but in the surrounding country, and, in fact, it became a source of considerable income to him after he became unable to go out to practice. He was very careful to keep a record of vaccine crusts.

In regard to vaccinating persons known to be suffering from syphilis—I vaccinated a servant at the house of a family which I also vaccinated from the same quills. She bore about her nose and forehead and about the lower extremities the evidences of constitutional syphilis. She was quite deaf, and I was not able to question her closely. Her vaccination was not successful. Then, there was another case, that of a young man sixteen years of age who was suffering from secondary syphilis at the time. I vaccinated him twice, but failed in each instance to get the vaccine to take. In another case, that of a girl who was working in one of our large printing establishments, vaccination also failed. I have observed a number of similar cases.

I would like to ask Dr. Curtis if he can remember a case where a mother and baby were vaccinated at the same time. Mothers insist that they prefer to be vaccinated at one time and have the baby vaccinated at another.

In my early days I was very earnest in vaccinating infants and adults in two places, but about six years ago I changed my plan and vacccinated but in one place. We know well the German method of vaccination consists in making three good sores on each arm, and my attention was called to the fact about three or four months ago. Two women came to my office, each one of them presenting three beautiful marks upon their arms from vaccination done in Germany. I revaccinated them, but without success.

I believe there is a danger, which Dr. Hale spoke of, in vaccinating children with bovine virus, due to ulceration and inflammation. I had a case where inflammatory disturbance came very nearly causing the death of a child.

These are all practical points that have been presented, and I must say that I am very much pleased with Dr. Curtis' paper.

Dr. H. S. **Paine** mentioned a case of successful vaccination in a syphilitic.

Dr. J. THOMPSON: This paper of Dr. Curtis' has proved very interesting to me, as I have had some little experience in vaccinating in Albany. I have been connected with every general vaccination of the city for the past ten years. I think I have seen these eruptions presenting themselves in about every epidemic.

In a case of small-pox in a child that occurred some years ago, Dr. O'Leary, who was health officer at that time, was called in, and, on recognizing the disease, vaccinated the other children, who had never been vaccinated. After three days the eruption of small-pox showed itself. As the vaccination developed, the small-pox pustules lessened. Dr. Balch, too, vaccinated a young man after the eruption had begun to show itself, and aborted the disease.

Dr. S. R. MORROW had a case which he had vaccinated five times, using both quills and points. He then vaccinated the leg, with no success. He then vaccinated the child on the arm, when, in the usual time, the vaccination developed on the arm, and also upon the leg.

Dr. CURTIS thought that it was a rare thing to find one vaccination lighted up by another.

He said that while acting as health officer there were several cases of small-pox in one family, and they were all removed to the Pest-house, where the mother was confined; the child was born in the Pest-house, and was vaccinated when two weeks old. The vaccination was unsuccessful and the child took the small-pox.

In regard to the vaccine virus, he thought that one should be extremely careful about the source from which it is derived.

Dr. D. V. O'LEARY said that he was surprised that any person should object to vaccination after its good effect had been so thoroughly demonstrated, yet there were people to be found who would league together to prevent it.

Dr. J. H. SKILLICORN said he had met with no unfavorable symptoms in vaccination. When he had vaccinated in three places, they all worked with equal intensity.

SANTONIN IN AMENORRHŒA.—Walter Whitehead, F.R.C.S. Eng., F.R.S. Edin., Surgeon to the Manchester Royal Infirmary, prescribed ten-grain doses of santonin to be taken for two consecutive nights, and to be followed each morning by a seidlitz powder. No worms made their appearance, but a few days afterwards, menstruation, which had been in abeyance for several months, occurred. Santonin in amenorrhœa, and in many cases after the permanganate of potash has been tried in vain, and in chloro-anæmia, subordinate to amenorrhœa, appears to be of the most signal value. With the return of menstruation, or a discharge of blood from the vagina equivalent in effect, every symptom has rapidly subsided.—*London Lancet.*

ALBANY MEDICAL ANNALS:

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EDITORIAL COMMITTEE:

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Vol. VII. JANUARY, 1886. No. 1.

THE STATE MEDICAL SOCIETY MEETING.

The eightieth annual meeting of the Medical Society of the State of New York will be held on February 2, 3 and 4. It is a long way back to 1806, when it met for the first time in this city, and here it has met for each of the intervening years. The society has reached a dignity of years that is rare in this country of new things, and it has always been a very well sustained organization, gathering about it the best men of the state, who have assembled at the yearly meetings to tell or to learn what another twelvemonth has developed. The approaching meeting promises to be one of the best, judging from the copy of preliminary announcement of papers which has been sent us. The list consists of fifty-nine papers, which will certainly tax the resources of the three days' session to present. All parts of the state at represented by the authors. Among them are Drs. W. H. Thomson, A. Jacobi, A. L. Loomis, R. F. Weir, C. R. Agnew, F. N. Otis, D. B. St. John Roosa and L. Duncan Bulkley, of New York; W. W. Potter and Lucien Howe, of Buffalo, the former being chairman of the provisional business committee; W. H. Bailey and James P. Boyd, of Albany; W. S. Ely, of Rochester; Walter B. Chase and George R. Fowler, of Brooklyn; William C. Wey, of Elmira; Harvey Jewett, of Canandaigua; C. L. Stiles, of Owego; B. F. Sherman, of Ogdensburgh; P. R. Furbeck, of Gloversville; T. H. Squire, of Elmira, and a long list more whose names are familiar as pillars of the society. Besides, papers are announced from Lawson Tait, of England, J. A. S. Grant (Bey), of Egypt, and D. B. Simmons, late of

Yokohama, who will be personally present with a paper on "Leprosy in Japan." Mr. Tait's topic is "Method's of Diagnosis." The subjects are exceedingly well balanced, upon General Medicine, Surgery, Obstetrics, State Medicine, and topics of a general character. There is but a moderate amount of space given to strictly special subjects, which is well, since sepcialists are inclined to wade too deep for the average practitioner to follow and touch bottom. It appears, as far as our recollection serves, to be the best arranged programme ever offered for a meeting of the society.

Those of us in this vicinity will take a special interest in the meeting, since, in addition to its promise of being most instructive, it is to be presided over by Dr. A. Vander Veer, of this city.

Those mindful of the pleasant meetings of years ago, and of the dingy Agricultural Hall of recent time, will rejoice to know that the handsome Common Council Chamber of the new City Hall will be the place of meeting.

It has been intimated that the question will be raised as to the propriety of holding every alternate meeting in some other part of the state. There is so much to be said in favor of this that, in spite of the conservative spirit of age, it is to be hoped that it will find adoption. Other plans for popularizing the meetings will probably be brought forward.

The old society is full of young life, along with the generous admixture of heads that have grown gray while following its lengthy history; it has the spirit of eminent men of the past in this state, and the associations and traditions of the century woven into it; and it is the head of our state system of medical societies, and has the coveted position of membership to offer, all giving it a weighty character and the promise of usefulness in the future commensurate with its past, at no time in which was it probably in better hands nor with a better prospect of vitality.

F. C. C.

THE PLAN OF THE WATER COMMISSIONERS ADOPTED.

The city of Albany has finally adopted the plan proposed by the Water Commissioners, of pumping from gang-wells sunk in the river flats between here and Troy, and now that absorbing question is settled. It would have been impossible for four better men to have been selected to serve the city, and they are to be congratulated on having had their propositions accepted. The test of the well water has shown it to be of remarkable purity, and the commissioners have investigated thoroughly its surroundings, or possible sources of contamination, such as that from the cemeteries, with satisfactory results. The objection that has been raised against the water on the ground of hardness is not worth considering; 11 degrees of hardness places it among soft waters. One of the supplies to London is of 25 degrees, and good authority places 40 degrees as the limit. The only question is as to the amount and permanence of the supply, which is only second in sanitary importance to its purity. The commissioners report themselves as thoroughly satisfied on this point, and it only remains to see whether their anticipations are correct.

The scheme of taking a supply of drinking water from a proposed aqueduct from the Adirondacks down the Hudson valley and supplying all the cities and villages on its course will probably never be carried out, attractive as it might appear on hygienic considerations only. But it does not seem beyond the range of possibility to go to the upper Hudson for our water. A glance at the map will show that the river a little distance above Glens Falls takes a considerable bend southward, bringing it at the angle of its nearest approach perhaps within sixty miles of our city. Here the water should be pure, and could always be kept so. If from this point a closed conduit were constructed, water could be brought to supply not only Albany, but Troy, Cohoes, West Troy and the adjacent villages. This would not appear an unreasonable distance to bring the water for nearly 200,000 people, for Rochester, for half that number of inhabitants, conducts its water in this way from Hemlock Lake, forty miles distant. It would appear a more feasible project than some that have been suggested, and one that would give a supply both wholesome and abundant.

It is a matter of much satisfaction however, that the board, whose members are best competent to judge, and who, no donbt, gave attention to all possible sources, have with such unanimity and earnestness commended the gang-well plan, and, as they are not men to give an ill-considered judgment, the success of this venture may be anticipated.

F. C. C.

OUR NEW PAVEMENTS.

Albany has taken a long step ahead in one direction, that is in improving its street pavement. It is very well said by the chance visitor here from the Old World that our streets are so execrable that they would not be tolerated for a moment in the smallest European town; and our reply may be that such orderly things come with age, though it is difficult to grasp the inference of such logic from a bi-centennarian city. Nothing impressed the writer, of all the novel things that greeted his senses as he left the steamer from New York at Bremen, more than the smooth, clean blocks of stone, laid with absolute uniformity, in the streets. It is true, all over Europe, that, while the pavements may be far from clean always, they are smooth as a matter of course. It is doubtless due to this fact that much more use is made of public carriages there, and that they are usually cheaper. Cabby can't afford it here, because his vehicle soon wears out and his horses grow old before their time, in traversing the layer of cobblestones lately covering most of our streets. And, inferentially, medical bills ought to diminish, at least with those physicians who use carriages, since the carriage-maker will share less of the profits, not to mention the weariness of body from jolting pitch-holes and sliding on high-crowned streets. We haven't yet the delightfully smooth, still, asphalt pavement, which, laid as it is in a London street, on a proper bed, would defy the elements as well here as there. But we shall probably have to creep before we walk, and the step from cobblestones to dimension block is almost equal to a good corduroy compared with unfathomable Virginia mud. It will soon be possible to reach all quarters of the city on this new pavement. The health aspect of smooth streets is too little appreciated; they can be kept clean. Whether or not they will, depends on whether the old town has paralyzed itself in the effort it has made, or whether it will be an added incentive to better things. As at present there are two different parties to the work—the householder with the broom, and the scavenger with his dirt cart, and the two somehow seldom seem to coöperate. It is suggested that a better plan would be the one largely followed in New York, for the people of a few adjacent blocks to hire a man to keep their street clean, sprinkling it, and then sweeping it up and carrying it away. It is said to cost each householder about a dollar and a half a month, and furnishes employment for many who would be glad of it. But, most of all, it ensures a constantly clean street instead of one which, in dry weather, allows the wind to blow clouds of filthy dust even into the third story, and in hot weather presents accumulations which are nests for decomposition and disease. F. C. C.

PERSONALS.

—Dr. Alfred Ludlow Carroll has resigned the position of Secretary of the State Board of Health. It was his intention, in accepting it about two years ago, to fill it only temporarily, upon the death of his friend and predecessor, Dr. Elisha Harris, and it has been at considerable sacrifice that, in the face of impending epidemics of cholera and small-pox, he has been constrained to retain it till now. His resignation deprives the Board of the services of a man of most versatile knowledge and of unequaled training in the science of state hygiene.

—Dr. Isaac Griffin Collins, of Sing Sing, age fifty-three, after attending nine of the miners at Shaft No. 6 of the new aqueduct, was taken suddenly ill with a chill December 18, 1885, and died, from neuralgia about the heart, the same day. He was born at Greeneville, Greene Co., N. Y., and was graduated at Union College in 1855, and the Albany Medical College in 1858. Twenty years ago he moved to Sing Sing, being the physician at the State Prison while Henry C. Nelson had charge of that institution. Dr. Collins was a member of the State Medical Society, and at one time was president of the Westchester County Medical Society, and served as president of the Alumni Association of the Albany Medical College in 1879. He was a man of fine abilities, genial character, and highly respected in his profession.

—Dr. Jonathan Cass died on Wednesday [January 20, 1886], after a short illness from pneumonia, at his home, No. 38 West Twenty-sixth street, aged sixty-one. He had been practicing in this city about twenty years. The funeral and burial will be held in Great Barrington, Mass., where he was born. A wife and two daughters survive him.—*N. Y. Tribune*, Jan. 22.

Dr. Cass was a graduate of the Albany Medical College, class of 1854.

—Dr. Albert Marsh (A. M. C., '85), who has for a time been with Dr. Gorham Bacon, of New York, for the purpose of perfecting himself in the specialty of ophthalmology and otology, expects to return soon to Albany to engage in the practice of his specialty.

—Dr. W. P. Mason (A. M. C., '81) has been elected to the chair of Analytical Chemistry at the Rensselaer Polytechnic Institute, Troy, N. Y. He had previously graduated at the Polytechnic in the class of 1874.

—Dr. W. E. Milbank (A. M. C., '72), of Albany, is appointed a member of the State Board of Health of New York, to fill vacancy caused by the death of the late Dr. John Savage Delavan (A. M. C., '61).

—MARRIED.—Wednesday evening, December 16, 1885, at the residence of the bride's parents, 225 Clinton avenue, by the Rev. Rufus Wendell, Fred J. Tompkins, M.D., of Knox, to Miss Emma Updegrove, of Albany.

—MARRIED.—Meyer L. Rhein, M.D. (A. M. C., '80), D.D.S., of New York, was married January 21, 1886, to Miss Lizzie Esse Odell, daughter of Dr. Frank M. Odell, of New York.

—Dr. W. C. Marselius (A. M. C., '84), has removed from Port Jackson to Albany, and is associated with Dr. Vander Veer, succeeding to the practice of the late Dr. N. L. Snow.

—Dr. M. McHarg (A. M. C., '85) moved from Dunsville, Albany county, to 197 Lancaster street, Albany, the former office of Dr. Albert Marsh.

OBITUARY.

DR. NORMAN LESLIE SNOW.

For several weeks we have been anxiously inquiring of one another as we met for the latest information regarding our friend and colleague, Dr. Snow. To most of us it was farthest from our thoughts to associate him with any serious disease. His compact and well-rounded form his hearty manner, his active interest in all that interested us, have spoken only of a firm hold on life and a long lease of it. We could hardly appreciate the anxiety that his immediate friends entertained, early in his reported illness, for him, and the force of the truth that his end was inevitably approaching but slowly took possession of us. And when we learned on Saturday evening, the 19th day of December, 1885, that the end had come, it hardly seemed possible that we had really seen the last of Dr. Snow.

Dr. Snow came to Albany ten years ago. Some of us had already formed his acquaintance at the meetings of the State Medical Society, of which he was then already a delegate member. He had already established himself well in the profession, first by three years of experience as an army surgeon, and by ten subsequent years of practice in Canajoharie. He came here at a time when the profession was taking on a new make-up. For the half century prior to this period the practice of medicine in this city was chiefly in the hands of men whose names still live as household words in Albany. It will be a long time before our people forget March and McNaughton, and Boyd and Staats, Van Olinda, Bigelow and Quackenbush. Dr. Alden March, one of the most noted of American surgeons, died in 1869. Drs. James McNaughton and Peter McNaughton, those potent men in the families and Councils of Albany, died in 1874 and '75 respectively. Dr. James P. Boyd, a contemporary, lived until 1881, but his advanced age had taken him from active practice. Mention might also be made of Dr. John W. Bay, for twenty-five years a co-worker with this quartette, although many years before our period he had left this city, his life ending in 1877. The brothers Staats, old practitioners here and prominent in civic affairs, died respectively in 1871 and '74. Dr. Van Olinda died in 1872, even in his advanced age retaining some hold on professional work. These were the men who had been for a considerable part of the century the prominent practitioners in Albany, all of them terminating their connection with the profession very near this time of 1875. Younger than these a little was Dr. James H. Armsby, the later co-worker and immediate successor in surgery of Dr. March; he died in 1875, while still an active practitioner and a strong man in the community. Dr. U. G. Bigelow died two years before him, and Dr. Quackenbush in 1874, both of them having been for many years very prominent in general and special practice. This summary of so long a list of men who for so long a time had been the forceful men in medicine shows how great were the changes within a very few years in the profession, made in it at about the time of Dr. Snow's advent here, to take his part in the work and to sustain the professional reputation of the city.

The work of the profession was passing into the hands of the younger, and a remarkable proportion of it were, like Dr. Snow, under middle age. It might perhaps be said too, that the general character of medical practice and thought was changing. There was an unusual infusion of the more exact teaching of the German schools, and this was making an impression on the teaching of American schools, and, more widely, upon the medical mind. Then, the war had been, as wars always are, a means of quickening medical study and enlarging medical experience. A little reflection will show how much professional thought has changed within the range of Dr. Snow's professional life. The vast volume of the literature of the profession, continually being added to, in this country, shows its activity and the eagerness of its members. How much of it existed twenty years ago? The very evanescence of much of it shows its progressiveness, and the development of the lines of special work, making some of the specialties almost a fixed science, the invention of new instruments of research and of operative procedure, and the discovery of new agents for the cure of disease, show to the reflecting mind at a backward glance how much all this activity and energy has been accomplishing. It has been a time to stimulate the energies of a worthy man.

Dr. Snow, as the son of a prominent physician of Montgomery county, started with an inherited medical spirit and taste for its work. One who has been brought up in its atmosphere imbibes unconsciously much that is to fit him for this work, and gives him an advantage over those less favored. His father was more than a physician, for he took an active interest in public affairs, and was at one time a member of the state senate. Dr. Snow was born April 7, 1839. After preliminary schooling at Canajoharie, he entered Union College, graduating in 1859. He at once passed on to his medical studies at the old College of Physicians and Surgeons of New York City, and received his degree in 1861. This was the time of the outbreak of the civil war, and in this school he had three years of tuition. Probably nothing did so much to develop the knowledge of medicine and surgery in this country during the last century as the French war and the war of the Revolution; so this, the great civil war, vastly enlarged information, in surgery especially, and was a source of instruction to all the medical men who had a hand in it. Dr. Snow obtained a commission as assistant surgeon of the 153d N. Y. V. in August 1862, and in February, 1864, was promoted surgeon of the same regiment. He saw service in the defenses of Washington, was with Sheridan in the Shenandoah, and in the Red River expedition under Banks. During the summer of 1865, after the suspension of active hostilities, he served as health officer of the district of Savannah. October 18, 1865, he was mustered out of the service. He returned to his native locality and practiced his profession for ten years in Canajoharie. Here he speedily brought into use his well-acquired knowledge of surgery, and soon secured the work in this branch of the profession for a large section in his vicinity. He was an active member of the Montgomery County Medical Society, and was sent as a delegate from it to the State Medical Society, of which he became a member in 1875. He was married in 1873 to Miss Elizabeth J. Smith, who, with two children, survives him. He came to Albany in 1875, but prior to coming he went to Europe, where he availed himself of the opportunity of observation, especially of surgical practice, in Vienna, Paris and London. Immediately on coming here he joined this society, and has been a frequent attendant upon our meetings, contributing much to the papers and discussions. One of his most valuable papers will be remembered on the subject of skin grafting. He was elected by us a delegate to the American Medical Association, and became a member of it. He has held the office of censor, and in 1882 was elected president. Soon after coming here he received the appointment of attending physician to the Albany Hospital, and a little later was transferred to the surgical staff, which position he held at the time of his death. In 1879 he was appointed a curator of the Medical College. Much of his best work has been done in the hospital, and he made it largely available for instruction of the medical classes. In public affairs he has also taken an interest, but the only office he has held outside of the profession has been that of alderman, having been president of the present board. Interesting details of his life might be given did time suffice, but this short outline of prominent events gives some hint and record of the calibre of our deceased associate.

To his character I need make but slight reference, for we have all known him well. He was a modest, unobtrusive man.

While ready with an opinion, he was not inclined to push it forward. He was always a most genial, agreeable and instructive companion. While he has secured positions and honors at the hands of his professional associates and fellow citizens, there is no doubt that, filling them all well and in his quiet way, he had not, by far, filled out the possibilities that were in him. He was doing good work, and was on the way to larger things. He has dropped out of life in his prime, in the midst of usefulness, in the activity of a large professional work, and yet at a time when he was getting a growing hold upon the professional respect of his associates; and for this, and for all the personal regard in which we held him, I am the mouth-piece of every member of this society when I speak of the keen regret we all feel that we shall see his familiar face no more. F. C. C.

MINUTES OF THE SPECIAL MEETING OF THE MEDICAL SOCIETY OF THE COUNTY OF ALBANY CALLED TO TAKE ACTION ON THE DEATH OF DR. SNOW.

A special meeting was held at Alumni Hall, Tuesday evening, December 22, 1885.

President STEENBERG called the meeting to order, the following members being present: Drs. W. H. Bailey, T. P. Bailey, Ball, Bartlett, Bendell, Blair, Bigelow, Boyd, H. S. Case, Classen, Cook, Culver, Curtis, Devol, Fleischman, Lorenzo Hale, William Hailes, Jr., H. Hun, Keegan, La Moure, Joseph Lewi, M. J. Lewi, Merrill, Morrow, Mereness, Munson, Murray, Murphy, W. J. Nellis, Newcomb, Perry, Reynolds, Ritzman, Russell, Shanks, Skillicorn, Stillman, Thompson, Townsend, Trego, Tucker, G. L. Ullman, Van Slÿke, Ward and Winne.

Dr. CURTIS moved that a committee be appointed to take action expressing the loss that the Society has sustained in the death of Dr. N. L. Snow. Carried.

The President appointed the following committee: Drs. F. C. Curtis, J. Lewi, O. D. Ball, E. A. Bartlett, T. K. Perry.

The expression of the committee was, on motion, adopted by the Society. [See page 17.]

Dr. W. H. BAILEY then said:

Mr. President:

There is a solemn significance in being assembled to pay the last tribute to a departed associate. Upon previous and similar occasions he has mingled with us, and his voice has been heard in words of sympathy and condolence at the departure of some other friend, little thinking that he would so soon be summoned to that better land. * *

Dr. Norman L. Snow has passed away, and will no more cheer us by his kindly words nor encourage us by his presence. To-day we meet to express our grief at his loss and to convey to his family our unfeigned sympathy in their great affliction. It seems but yesterday that Dr. Snow was here, apparently in the full vigor of health, attending to his various duties and exchanging with us his pleasant salutations. But he has gone, and it becomes us to bow in humble submission to what seems to us a sad dispensation of Providence.

Dr. Snow was fortunate in his childhood and youth in having been surrounded by every facility for future sturdy manhood. He was in the country, in a healthy locality, and there remained until he left home for educational purposes. He was untrammeled by the conventional customs of city life, and with the unrestrained exercise of a boy's country life he had every opportunity for physical development. His father was a physician of eminence, and took great pains to properly direct the physical and mental development of his family. The best schools were selected. and every advantage that good judgment and money could secure was given them.

Dr. Snow was courteous to his professional associates and unobtrusive in his opinions when in consultation with them. He was prompt in answering calls and very attentive to his patients, quiet in the sick-room, kind and sympathetic. He was a man of good judgment and a progressive and good physician.

Dr. M. J. Lewi said:

Again are we called upon to pay a tribute of respect to the memory of one of our professional brotherhood, and the sad faces of those about me attest the grief which death has once more brought home to our door. I shall not attempt to enter into a detailed eulogy of him whose loss we now mourn, but desire simply to place my sprig of green upon the bier of one whom I had learned to respect and admire. His numerous qualities of mind and heart bore best fruit in his chosen profession, and a few weeks' experience among his patients, to whom I attended during the days of trial and suffering previous to his demise, have convinced me of his thorough knowledge and understanding of the details so important to the successful practice of the profession of medicine. His patients learned to love and respect him, and many a fireside has been made sad because of his suffering and death.

How poor indeed seems the power of medicine when grim Death, with slow but certain pace, steals within our midst and draws to its icy embrace the loved ones about us. Our profession would but seem a mockery did we not believe in the existence of a higher power before whose force and will all science and scientists must one day bow. He so believed, and patiently and heroically waited for the end. God grant him his reward.

Dr. S. H. Freeman:

I am sure we all heartily respond to the eloquent words of the gentlemen who have spoken of Dr. Snow's moral and political character. His death is a bereavement to the profession and to the public. His cheerful temper and his courteous deportment made his presence always welcome. And during the days of his last painful sickness his calm resignation to the divine will made his very presence sacred. We mourn our loss; let us emulate his virtues, and let us not forget this impressive lesson, that we may also be ready when we shall be summoned into the immediate presence of our Lord.

Dr. G. S. Munson:

"We miss him! we miss him!" I hear these words echoed from every heart here. * * During two years as my preceptor he endeavored to teach his students to be ever mindful of duty, attentive to their calling, honest and candid, and to improve every opportunity to fully educate themselves to do the greatest good in alleviating the sufferings of unfortunate humanity. A physician, more perhaps than most men, though he be dead, yet lives by his deeds. Though cut down in the prime of life, in the midst of usefulness, with his honors thick about him, yet shall Dr. Norman L. Snow be long remembered in the hearts of all by his many deeds of kindness. Dr. Snow would have chosen to die with all his armor on when his life had been well rounded and complete, but the Almighty had determined otherwise, and we, bowing to the inevitable, answer, "Thy will be done."

Dr. F. TOWNSEND, JR.:

Again is this Society enshrouded by the death of one of its most active and respected members, and it meets this evening for the purpose of giving expression to the sentiments which prevail in the hearts of all who were honored in enjoying the acquaintance and friendship of their beloved colleague, Norman L. Snow. Men are called great whose lives have displayed acts which attract the public gaze, of war or statesmanship. The hero of an hundred battlefields may furnish volumes for history; the statesman, the lawyer, the divine, puts forth his proudest efforts in the presence of admiring multitudes, who, like diverging rays, spread his fame throughout the land. Ours is a profession whose noblest and most heroic achievements are accomplished in silence and in seclusion, often without hope of reward, and with none to witness, save the misery which surrounds. Without any of the ordinary accessories to distinction, devoted to the laborious and unattractive details of his profession, we find this man by his faithfulness and devotion acquiring the love and respect of the community, so that on his death not only we, in the city, but many remote, are found in mourning.

As we delight to honor while living, in death let us cherish the memory of him who has adorned his chosen and beloved profession, And happy are we if when our own account is made up we shall be found, each in his appropriate sphere, as was our deceased colleague, to have done some service to the community or state. Then, whether in the morning of life, or at its fervid, bustling noonday, or in the declining hour, we depart, our memories will be cherished, and our names implore the passing tribute of a sigh.

Dr. T. K. PERRY:

* * One might say with truth that the varying sentiments which find expression on such occasions as these are all of the pleasantest—the motives which impel their utterance, the sentiment embodied, and, more than all else, the assurance with such gives of the possession within the human mind and heart of those priceless treasures, sympathy and charity.

Few in our Society knew the doctor as I did—none better. During his early years in our city I saw much of him. It was then that a friendship was formed which has never been broken, lasting until the end. I wish I might tell you of the many noble traits of character which this dear friend possessed; I wish I might tell you of his many praiseworthy characteristics, of his wonderful fortitude under most trying conditions, of his unsurpassed equanimity of temper, of his admirable tact and skill under most pressing emergencies, of his excellent professional attainments, of his rare social qualities, of his goodness of heart, of his purity of character—yes, and more, of my great respect for so good and dear a friend, and my most sincere grief at our loss; but I can only add the hope that some day may be said of me what can so truly be said of him—that he was true to his friends, that he loved his enemies, that he was a noble illustration of God's noblest handiwork—a true man.

Dr. E. A. BARTLETT:

I have been requested to read the notes of the autopsy of the body of our late associate.

REPORT OF THE AUTOPSY.

Name—Norman Leslie Snow, M.D.
Residence—233 State street, Albany, N. Y.
Date of Death—December 19, at 6:30 P. M.
Age—46 years.
Date of Autopsy—December 21, 1885, 49½ hours after death.
Place—233 State street.
Present—Drs. Albert Vander Veer, Franklin Townsend, Jr,, T. Kirk. Perry, Ezra A. Bartlett, and Mr. A. Blessing, medical student.

GENERAL APPEARANCE.

Body but little emaciated. Rigor mortis well marked. Body opened by a crucial incision through a layer of adipose one and one quarter inches thick, and well-marked muscular tissue, in the abdominal walls.

SPECIAL APPEARANCE.

Abdominal Cavity—Omentum thickened Intestines normal, with the exceptions to be mentioned. Duodenum, at its lower third, firmly adherent to under surface of right lobe of liver and also to pancreas, which latter organ was adherent to the ductus communis back to the transverse fissure of the liver. At this point there was found a mass of thickened connective tissue and adhesions.

Liver—Very firm adhesions existed between the liver and the anterior, right and posterior abdominal walls and also the under surface of the diaphragm, so firm that the substance of the liver was torn in their separation. The right lobe was contracted, the left normal in size. In the right lobe were three very large infarcta and in the left multiple small ones.

Gall Bladder was markedly adherent to the liver. It contained about an ounce of bile and a large amount of very fine biliary calculi. The gall ducts were all pervious, although in the hepatic duct was found a round calculus measuring nearly half an inch in diameter, and in the common duct, at its outer third, another of similar size and shape; both these ducts were so dilated as to allow the insertion of the index finger.

The Stomach was much contracted and drawn out of position by old and very firm adhesions, those between its greater curvature and the under surface of the spleen being particularly marked. The connective tissue about the solar plexus was much thickened, and there were evidences of inflammation in the plexus itself. The stomach contained about an ounce of fluid food. The mucous membrane at the pyloric extremity, for the space of three fingers' width, presented a rough and mottled appearance, and the gastric tubules were apparently quite effaced. This mottled appearance of the mucous membrane extended two or three inches into the duodenum.

Spleen—Very firm adhesions existed between the spleen and the under surface of the diaphragm, as well as the stomach.

The Kidneys were well enveloped in adipose tissue. The supra-renal capsules were normal. *Left*—Cortical substance somewhat granular, pyramids well marked, capsules not adherent. *Right*—Cortical substance thinner, pyramids not so well marked, capsule slightly adherent.

Bladder contracted.

Thoracic Cavity—Cartilages cut easily.

Lungs—*Left*—Slight cicatricial appearance at apex, no adhesions, hypostatic congestion in lower lobe. *Right*—Same appearance at apex, with some adhesions.

Heart—No effusion into pericardium. Heart normal, marked absence of blood.

Diaphragm—Central portion excessively thin.

Mr. President, this reading is a duty which was devolved upon me, and before I take my seat I desire to add a word of tribute to the memory of our departed colleague, associate and friend. It was my pleasure to know Dr. Snow somewhat intimately, and I can say here, without making it in the sense of a eulogy, that there are few men with whom I have felt so safe as with Dr. Snow. I say safe because of his honesty—not his honesty in the usual sense of the term, but because of the honesty of his opinions. He was a man who would say to you what he thought of you and about you, or he would decline to have an intimate relation with you if he did not feel that he could do so honestly. Dr. Snow was a man of very deep sympathy. He was a man of kindly Christian courtesy, and because of his Christianity, because of his belief in his God, in his Maker, in his Christ, he was the man that he was.

Certainly there are many families in town that miss Dr. Snow as their physician and as their friend. It was only to-day that someone said to me, "I loved Dr. Snow because he was so much more to one than simply a physician."

It is because of these many qualities of which we have heard to-night that we mourn his loss so deeply.

MEETING OF THE MEDICAL STUDENTS TO TAKE ACTION ON THE DEATH OF DR. SNOW.

At a meeting of the students of the Albany Medical College, held December 21, 1885, a committee was appointed, consisting of Messrs. J. A. Holley, J. A. Cutter, H. C. Gordinier, H. V. Mynderse, A. McFarlane, C. H. Moore, C. D. Rogers, D. J. Barry and W. H Fox, to draft resolutions of respect to the memory of the late Dr. N. L. Snow, who reported as follows:

We, the students of the Albany Medical College, deeply deplore the death of Dr. Norman Leslie Snow, for many years a curator of this college and an attending surgeon of the Albany Hospital.

He was much respected by us for his unvarying kindness and courtesy as a man and for the skill and unassuming demeanor that characterized him as a physician and a surgeon.

He was always willing to impart to us the knowledge gained by years of practice, and to give to the inquiring student the benefit of his own ripe experience.

Resolved, That we extend to the family and relatives our heartfelt sympathy.

Resolved, That as a final mark of respect we attend his funeral in a body.

Resolved, That a copy of the above be sent to the family of the deceased, and also be published in the daily papers and in the ALBANY MEDICAL ANNALS.

UNION MEDICAL ASSOCIATION.

ABSTRACT OF THE MINUTES OF THE EIGHTY-EIGHTH QUARTERLY MEETING

The eighty-eighth quarterly meeting was called to order by Dr. Miles B. Jones, of Sandy Hill, President, at the Town Hall, Saratoga, Tuesday, December 1, 1885, at eleven o'clock A. M. Dr. A. O. Ameden, of Glens Falls, occupied the Secretary's desk. Besides these gentlemen there were present Drs. James Ferguson and F. L. R. Chapin, Glens Falls; T. B. Reynolds, R. C. McEwen, W. H. Hall, F. M. Boyce and Adelbert Hewitt, Saratoga; J. W. Moore, Cohoes; W. B. Webster, Schuylerville; R. H. Stubbs, Waterford; A. B. Burger, Ballston; George S. Munson, Albany; I. G. Johnson, Greenfield Center; J. S. Cooley, Luzerne; B. J. Murray, Wilton.

Dr. W. H. HALL, of Saratoga, reported the following case of

FRACTURES IN A CANCEROUS PATIENT.

On the 13th of May, 1885, I was called to see Mrs. O., 52 years old. On the preceding Saturday (the 9th) she rose from her chair to cross the room, when her right leg gave way, and she fell to the floor. She was placed on the bed and a *legally* qualified physician was sent for, who pronounced it a case of rheumatism, left some liniment, and advised her to be taken to his institute (?), where he could cure her for $150. When I first saw her, she had suffered for about eight months with more or less pain in the right thigh, with some swelling. I found the patient in bed, on her back, with shoulders elevated, right knee lying over the other thigh, flexed, with foot inverted, the thigh forming an obtuse angle, the apex of angle at about its middle. I suspected fracture of femur at about its middle third. She was suffering acute pain, and was extremely nervous. I gave an opiate, and decided to call the next morning with assistants, administer ether, and make a thorough examination. On the 19th, with the assistance of Drs. R. C. McEwen and D. C. Moriarta, a mixed anæsthetic of ether, chloroform and alcohol was given; patient went under its influence kindly. Fracture of the femur was found as above, with evidently disease of the bone. It was difficult to decide how the limb should be dressed, from the fact that the patient had a vesico-vaginal fistula, as a result of an operation for stone some years previous. The inside of the thighs were excoriated from the constant dribbling of urine, particularly the injured thigh. The patient suffered from asthma, so that she could not take the recumbent position, and she had extensive cancerous disease of left breast, in a state of extensive ulceration. The limb was put up in plaster bandage, with strips of willow splint around the thigh, and inside of same protected by patent lint smeared with vaseline; foot of bed raised and extension made by weight. It was impossible to keep the patient in any one position for any length of time; the constant escape of urine saturated the dressings, ulcers formed underneath, and appliances had to be removed to relieve pressure; extension and counter-extension were kept up as well as possible. Another fracture occurred in moving the patient to a fracture bed, and still another one afterwards in placing her on bed-pan. She finally succumbed to the complication of troubles on the 18th of September. The femur of injured limb was removed entire the next day; the bone was in four pieces, showing no attempt at union. The finger nail could easily indent the bone nearly its whole length. After the flesh had been removed by boiling, the middle piece could be almost powdered between the thumb and finger. The weight of the whole femur was four and one quarter ounces, in contrast with fourteen ounces for a healthy one of about the same size. There had been in the patient's family some three or four cases of cancer.

Dr. GEORGE S. MUNSON, of Albany, read a paper on "Eye Diseases as Related to the General Practice of Medicine," illustrated with charts and apparatus.

CHLORAL FOR LOCKJAW.

Dr. T. B. **Reynolds** reported two cases of tetanus, one from severe burns, resulting in death, and the other from an injured foot, wherein the patient, a boy, is nearly well. The doctor extolled full doses of chloral.

Dr. A. B. **Burger** related an incident of giving about a drachm of chloral to be divided into a number of doses, but the patient of his own accord took the whole at once and died.

Dr. F. L. R. **Chapin** thought drachm doses of chloral within the bounds of safety.

Dr. **Reynolds** concurred with Dr. Chapin, and said he had often used large doses without deleterious effects.

Dr. R. H. **Stubbs** said that a compound of chloral and bromide of potassium after standing a certain time became decomposed and unfit and dangerous to use.

AN AFTERNOON SESSION

was held at half-past two o'clock.

Drs. James Ferguson, T. B. Reynolds, J. W. Moore, T. Z. Gibbs and J. J. Flint were appointed a committee to report as to the advisability of certain proposed amendments to the constitution and by-laws.

THE NEXT MEETING

was designated to be held in Glens Falls on the the third Tuesday of February (the 16th), 1886.

SCHENECTADY COUNTY MEDICAL SOCIETY.

Abstract of the Minutes of the Annual Meeting.

The annual meeting was held on Tuesday, January 12, at the Court House.

The following officers were elected: Dr. H. V. Hull (A. M. C., '74), President; Dr. C. C. Duryee (A. M. C., '81), Vice-President; Dr. A. T. Veeder (A. M. C., 63), Secretary; Dr. John Schoolcraft (A. M. C., '79), Treasurer; Dr. M. G. Planck, delegate to the American Medical Association; Drs. Clute and E. P. Van Epps (A. M. C., '81), delegates to the Montgomery County Society; Drs. G. W. Van Voast and John P. Mackay, delegates to the Medical Society of the County of Albany; Drs. Robert Fuller (A. M. C., '75), G. W. Van Voast and William L. Pearson (A. M. C., '78), censors.

Drs. L. B. Rulison (A. M. C., '84), of Glenville, and Haines and A. Middleditch (A. M. C., '56), of Duanesburgh, were proposed for members of the society; Dr. Stuart, of Schenectady, was proposed for re-instatement, and Drs. P. R. Furbeck and W. D. Parsons, of Montgomery county, and T. K. Perry (A. M. C., '75), of Albany, were proposed for honorary membership.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY.

ABSTRACT OF THE MINUTES OF THE ANNUAL MEETING, HELD OCTOBER 13, 1885, AND OF THE STATED MEETINGS OF NOVEMBER 18, DECEMBER 9, 1885, AND JANUARY 13, 1886.

The annual meeting of the Medical Society of the County of Albany was held at Alumni Hall, on the afternoon of October 13, 1885, at 3:30 o'clock P. M.

President J. D. Featherstonhaugh in the chair. Present: Drs. T. P. Bailey, Bartlett, Bendell, Blair, Boyd, E. E. Brown, D. C. Case, H. S. Case, Classen, Cook, Culver, Curtis, BuBois, Fleischman, Freeman, Hailes, Hale, La Moure, M. J. Lewi, March, Mereness, Moore, Morrill, Munson, W. J, Nellis, O'Leary, Perry, Scattergood, Skillicorn, Steenberg, Stonehouse, Townsend, Tucker, Van Allen, Vander Veer, Van Slyke, Ward, Witbeck and medical students.

The minutes of the semi annual, annual and special meetings were read and approved.

Dr. U. B. LA MOURE presented his report, as Treasurer, which showed the receipts of the year to have been $161.08; the disbursements, $148.35; balance, $12.73. The report was referred to a special committee appointed by the President, consisting of Drs. Snow, Witbeck and Hailes, who subsequently reported that they had found the Treasurer's accounts correct. Their report was adopted and ordered placed on file.

The Committee on Decoration of Rooms, through Dr. Freeman, chairman, reported progress.

The Committee on Registration reported. through its chairman, Dr. Thompson, as follows:

ALBANY, *October* 13, 1885.

Mr. President:

Your Committee on Registration beg leave to make the following report:

They find regestered in the County Clerk's office, in the book of register, and by affidavit, the names of eighteen practitioners of medicine and surgery, with their ages and place of birth, and their present residence; the colleges they graduated from, or the institutions that they claim a degree from. The names added to the register since our last annual meeting, 1884, are as follows:

November 2, 1884, Geo. H. McTammany, Cohoes, N. Y., Albany Medical College. October 13, 1884, Horatio Craig, Green Island, Albany Medical College. October 22, 1884, Clark D. Welch, Albany, N. Y., New York Homœopathic Medical College. March 5, 1885, Daniel Gilliland, Albany, N. Y., Albany Medical College. March 9, 1885, Adelbert E. Moody, Albany, N. Y., Albany Medical College. March 26, 1885, Martin McHarg, Dunnsville, New Scotland, N. Y., Albany Medical College. May 7, 1885, Thomas P. Scully, Cohoes, N. Y., Albany Medical College. May 21. 1885, William F. Shaw, Dormansville, N. Y., University of the City of New York. June 1, 1885. P. O. Lanzon, Cohoes, N. Y., Victoria Medical College. June 3, 1885, Isaac N. Albright, Coeymans Junction, N. Y., Albany Medical College. July 8, 1885, Fred J. Tompkins, Knox, N. Y., Albany Medical College. September 14, 1883, Edwin Morton King, Fort Edward, N. Y., University of Vermont. September 16, 1885, F. R. Greene, Albany, N. Y., Albany Medical College. March 28, 1885, Albert

Marsh, Albany, N. Y., Albany Medical College. October 7, 1885, James W. King, Albany, N. Y., Albany Medical College. October 8, 1885, E. E. Larkin, Albany, N. Y., Albany Medical College. January 27, 1885, F. B. Smith, Hahnemann Medical College. February 28, 1885, O. D. Phelps, Albany, N. Y., United States Medical College, New York.

The Board of Censors, consisting of Drs. William Hailes, Jr., chairman, S. R. Morrow, Theodore P. Bailey, F. L. Classen and W. J. Nellis, reported as follows:

At a meeting of the Board of Censors, of the Medical Society of the County of Albany, Held at Alumni Hall, October 13, 1885, the following names, with the necessary credentials, were presented, and unanimously recommended for membership to this Society: D. W. Houston, Cohoes, N. Y.; J. W. Ross, Cohoes, N. Y.; L. E. Blair, Albany, N. Y.; M. J. Dwyer, Albany, N. Y.

On motion, the gentlemen recommended by the Board of Censors were unanimously elected to membership.

The Secretary read a communication from the Secretary of the State Society, of which the following is an extract:

At the last annual meeting of the State Society, the Secretary was directed to request the County Societies to establish the date of their annual meetings at some date within the three months following January 1st, inclusive, of each year. Please call the attention of your Society to the matter. You will find the law authorizing County Societies to change date of their annual meeting in the appendix of the Transactions for 1880, page 50 and 51.

The communication was read and ordered placed on file.

Dr. Bendell gave notice that, at a subsequent meeting, he would offer an amendment to the by-laws providing for a change of the date for holding the annual meeting.

The President called the Vice-President, Dr. Perry, to the chair, and delivered the President's annual address. [See Albany Medical Annals, November, 1885, page 344].

On motion of Dr, Freeman, the thanks of the Society were voted to the President for his interesting and instructive address, and copy requested for publication.

On motion of Dr. Vander Veer, the topic presented in the President's address was made the subject for discussion for the next semi-monthly meeting.

The President announced that the next order of business was election of officers. On motion, the Secretary was instructed to cast one ballot for the following gentlemen:

For President.—B. U. Steenberg.

For Vice-President.—O. D. Ball.

For Secretary.—W. J. Nellis.

For Treasurer.—U. B. La Moure.

For Censors.—J. D. Featherstonhaugh, A. T. Van Vranken, W. H. T. Reynolds, F. Townsend, Jr.,, T. P. Bailey.

For Delegates to Union Medical Association.—F. C. Curtis, E. Van Slyke,

For Delegates to Rensselaer County Medical Society.—T. K. Perry, G. S. Munson.

For Delegates to Schenectady County Medical Society.—J. B. Stonehouse, J. W. Moore.

For Delegates to Schoharie County Medical Society.—F. L. Classen, C. M. Culver.

For Delegates to Greene County Medical Society.—W. H. Murray, T. F. C. Van Allen.

For Delegates to Columbia County Medical Society.—D. H. Cook, J. C. Healey.

For Delegates to Montgomery County Medical Society.—T. W. Nellis, D. C. Case.

The ballot was cast by the Secretary, and the gentlemen declared elected.

Dr. M. J. LEWI moved that the thanks of the Society be tendered to the retiring officers. Carried.

On motion, the meeting adjourned.

JNO. BEN. STONEHOUSE, *Secretary.*

A regular meeting of the Medical Society of the County of Albany was held at Alumni Hall, Wednesday evening, November 18, 1885.

The following members were present: President Steenberg, Drs. Bartlett, E. E Brown, H. S. Case, W. H. Craig, Curtis, Featherstonhaugh, William Hailes, Jr., Lorenzo Hale, Mereness, Morrow, Munson, Murphy, W. J. Nellis, Newcomb, Perry, Ross, Scattergood, Stillman, Shanks, Van Allen, Van Slyke, Van Vranken, Ward (24).

The reading of the minutes of the last regular meeting was waived.

President STEENBERG proposed the name of Dr. J. L. Cooper for membership. Referred to the Board of Censors.

The President then appointed the following committees for the ensuing year:

On Pathology—Drs. William Hailes, Jr., chairman, A. Vander Veer, Henry Hun, Seth G. Shanks, Maurice J. Lewi, Eugene Van Slyke.

On Hygiene and the Relations of the Profession to the Public—Drs. E. A. Bartlett, chairman, F. C. Curtis, Lewis Balch, Lorenzo Hale, Selwyn A. Russell, A. T. Van Vranken, D. C. Case.

On Registration—Drs. D. Fleischman, chairman, Henry March, H. E. Mereness, J. W. Moore, Secretary W. J. Nellis, *ex-officio.*

Executive Committee—President, Vice-President and Secretary, *ex-officio*, and Drs. J. U. Haynes, D. H. Cook.

The President then announced that the discussion of the subject-matter of ex-President Dr. J. D. Featherstonhaugh's address on "Surgery of the Hand" [see page 344, ALBANY MEDICAL ANNALS, November, 1885] had been made a special order for this meeting, and was now in order.

Dr. S. R. MORROW congratulated Dr. Featherstonhaugh on the unusual opportunities he had had for studying the surgery of the hand and on the skill and success he had attained in the management of his cases. After referring to the interest of this branch of surgery, whose importance is only second to those procedures that are necessary to save life, he remarked that the very abundance of reparative power possessed by the tissues of the hand, owing to its extensive vascularity and nerve supply, made any inflammation that might set in apt to go beyond the limits of safety and become a source of positive danger to the integrity of the hand. He said that, without dwelling on the numerous points of interest connected with the management of injuries to the hand, he merely wished to ask Dr. Featherstonhaugh whether he had employed any special means to control hemorrhage from the palmar arches. He expressed his preference for ligature of the main vessels forming the arches—the radial and ulmar arteries—over enlargement of the wound and ligation of the bleeding arches at the site of the wound, such enlarging of the wound involving so much injury to the dense tendinous tissues of the hand as greatly to increase the risk of subsequent inflammation. He called attention to the practice of ligating arteries leading to new growths, as a means of checking their development by depriving them of the blood supply, and said that the same means had been used to check violent and extensive inflammation in the limbs. He said the same practice might be resorted to in the violent inflammations following wounds of the hand, but thought that forced flexion of the forearm on the arm might also be employed, and might be of use also to check the flow of blood from a wounded palmar arch.

Dr. J. D. Featherstonhaugh said that in only one case out of the number reported was there an injury to the palmar arch, and that was controlled by compression.

Dr. Shanks then read his paper on " Some Questions relating to Blood Measurement," illustrated with charts, drawings and microscopical demonstrations.

Discussion by Drs. William Hailes, Jr., H. E. Mereness, S. R. Morrow and E. A. Bartlett.

Dr. G. H. Newcomb presented to the Society a number of ancient documents, of which the following is a partial copy:

John Van Rensselaer, Esq.,
To Sam'l Stringer, Dr.

1783.		To Am't of Col. John V. Rensselaer, your Grandfather's Acc't till Feb'y 22d, 1784		£107	3s	6d
March	20	To Pul. Antim. Dos. ij, for your Horses			4	
	21	" Pil. Anod	Tom		1	6
	22	" Collyrium	Self		4	
Ap'l	28	" Lot. discut. ℥ viij	do.		4	
May	1	" Ung. Cœrul. fort	do.		2	6
Aug't	15	" do. Digest	Jack		1	
	21	" do. Epulot	do.		1	6
Sep'r	6	" Pil. ad Dol. Dent	Cuff		1	
	26	" Lot. discut. ℥ 8	Self		4	
Nov.	6	" Ung. Digest	Jack		2	
Dec'r	9	" Cathart	Self		2	
1784	15	" do.	do.		2	
Jan'y	24	" Bol. e Camph. No. vi	Serv. Man		6	
		" Garg. Comp	do.		4	
	25	" Bol. Rep't cu Cal. No. ij	do.		3	
	27	" Ung. Digest	do.		1	
Feb'y	4	" do. do.	Jack		2	
	17	" Extract'g Tooth	Wench		2	6
Ap'l	15	" Ung. Digest	Jack		2	
May	24	" Emet	Man		2	6
June	27	" Visit	Sayre		3	
		" Emet	do.		1	6
		" Haust. Anod	do.		2	
Ten foolscap pages of debits foot up in all to Dec. 25, 1792				£245	13s	3d
Contra (various services and items)				196	00	11
		Due		£49	12s	4d

The society then adjourned.

A stated meeting was held in Alumni Hall, on Wednesday evening, December 9, 1885.

The meeting was called to order by President Steenberg, the following members being present: Drs. Ball, T. P. Bailey, Bartlett, Bendell, Classen, Curtis, DuBois, Dwyer, Fleischman, William Hailes. Jr., Lorenzo Hale, Hall, H. Hun, La Moure, Morrow, Munson, W. J. Nellis, O'Leary, Perry, H. S. Paine, Russell, Scattergood, Shanks, Skillicorn, Thompson, Townsend, G. L. Ullman, Van Allen, Vander Veer (30), and many students.

Minutes of the last regular meeting were read and approved. The following were proposed for membership: Dr. O. Britton, by Dr. W. J. Nellis, Dr. J. V. Hennessey, by Dr. F. Townsend, Jr.

A communication was received from the State Society in regard to disposal of its "Transactions."

Dr. Curtis moved that the Society purchase twenty copies of the State Society Transactions. Carried.

Dr. Curtis then read a paper on "Vaccinal Eruptions and other Abnormalities of Vaccination." [See page 1.]

Discussed by Drs. Lorenzo Hale, F. Townsend, Jr., S. A. Russell, A. Vander Veer, H. S. Paine, John Thompson, S. R. Morrow, H. Bendell, D V. O'Leary and J. H. Skillicorn.

Dr. T. K. Perry reported a case of "Protracted Mechanical Labor, followed by Diphtheritic Inflammation of the Parturient Canal, with Death of Patient."

Discussed by Drs. F. C. Curtis, A. Vander Veer, F. Townsend, Jr., H. Bendell, S. R. Morrow.

Adjourned. W. J. Nellis, *Secretary.*

A stated meeting was held in Alumni Hall, on Wednesday evening, January, 13, 1886.

Present: President B. U. Steenberg in the chair, and Drs. T. P. Bailey, O. D. Ball, D. H. Cook, F. C. Curtis, J. D. Featherstonhaugh, Lorenzo Hale, J. E. Hall, H. Hun, S. R. Morrow, G. S. Munson, S. A. Russell, C. F. Scattergood, W. O. Stillman; also Drs. J. D. Cooper and J. V. Hennessy.

In the absence of Secretary Nellis, Dr. Lorenzo Hale was called upon to act as secretary.

Dr. John E. Hall, of Green Island, read a paper entitled "Report of a Case of Protracted Mechanical Labor, followed by Diphtheritic Inflammation of the Parturient Canal."

Discussed by Drs. Lorenzo Hale, O. D. Ball, D. H. Cook, S. A. Russell.

Dr. W. O. Stillman read a paper on "Rectal Alimentation."

Discussed by Drs. J. D. Featherstonhaugh, Lorenzo Hale, D. H. Cook, John E. Hall.

Dr. S. A. Russell gave an account of "Menthol and its Uses."

Discussed by Drs. S. R. Morrow, D. H. Cook, W. O. Stillman. Lorenzo Hale.

Adjourned. Lorenzo Hale, *Secretary pro tem.*

ALBANY
MEDICAL ANNALS:
A Journal of the Medical Society of the County of Albany.

Vol. VII. FEBRUARY, 1886. No. 2.

SOME QUESTIONS RELATING TO BLOOD MEASUREMENT.*

BY S. G. SHANKS, M.D., ALBANY.
(Albany Medical College, 1875.)

"Seeing is believing." So runs the old adage; but this is not strictly true. While our eyes may be very convenient for general purposes, for many special scientific purposes they are very untrustworthy, as I shall prove to you.

In the microscopic world, circular figures, bosses, beads, and the like, are very common. A few years ago the microscope demonstrated that certain diatoms were marked with lines running in different directions. Later and improved instruments showed the lines to be hexagons, beautifully arranged. To-day our best lenses show these hexagons to be round beads, and a grave suspicion exists that many of these beads may prove to be areolæ.

(Illustrating diagrams were shown).

If our naked-eye vision can so easily deceive us, what shall guide us in using the microscope?

In the measurement of blood corpuscles, the problem is to adjust accurately the image of a ruled line or a spider-web to the exact edge of the image of a blood corpuscle. Just before the line touches the circular edge it seems to be drawn in toward the corpuscle, making its actual optical contact a matter for study.

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* Read before the Medical Society of the County of Albany, Wednesday evening, November 18, 1885.

(Diagrams illustrating this distortion of a line by deceptive circular and angular forms, together with other delusive figures, were exhibited.)

Take also the example of the apparent size of the moon. One person will declare that the moon appears as large as a small plate; another one will give the size of a saucer as his estimate. The truth is, the moon is 111 times her diameter in distance; therefore, her apparent size is that of a silver dollar at a distance of about 14 feet. This is rather surprising, but it all proves that in the matters of magnitude and direction one involuntarily seeks a comparison to assist his judgment — the eye alone is insufficient. The diagrams show that comparisons are sometimes misleading.

Good eyes ought to see 250 lines to the inch at a distance of 10 inches. I knew one person — a myopic — who could count lines as close as three hundred to the inch. Myopics have very acute vision for small objects. With the best microscopic objectives 110,000 or 120,000 lines to the inch have probably been seen. The theoretical limit in resolving power for the best microscopical objectives now made is 135,000 lines to the inch. A first-class 1-10 or 1-12 inch objective will show all that can be seen. A higher power, 1-25 or 1-50 inch objective, merely amplifies, without revealing further details.

Astigmatism is also a factor which must be taken into account, especially when lines are in question. Lined objects or rulings which appear indistinct in the usual vertical plane may sometimes be seen distinctly by presenting them to the eye at a more favorable angle, either by turning the head simply or by using a revolving stage. The first plan is the easier one, because it does not change focus nor illumination. Few, if any, eyes are blameless in the matter of astigmatism.

There can be no real objections to the use of adjustable objectives. A non-adjusting objective is corrected under certain conditions, and will not perform well except under similar conditions. For instance, a good student's 1-4 inch objective is usually corrected with a tube length of 9 inches and an inch or B eye-piece, over a mounted diatom, usually P. angulatum, which has a certain thickness of cover-glass. With these conditions the lens will show lines on this diatom with central light from the mirror. The maker guarantees this and the purchaser expects it. If the lens is non-adjusting, and is used with a different tube length and with cover-glasses of all degrees of thickness, its definition will be much impaired. If the lens has an adjusting collar, one can easily correct for all these disturbing conditions and always get the best work from it, and may confidently expect that fine definition will reveal minute structural details equally well in histological work as in the study of diatoms. If the collar is set in the middle of its run, the lens can be used as an ordinary non-adjusting objective. The art of correcting an adjustable lens can soon be acquired by practice over a mount of diatoms.

The instrument before you was used in these blood measurements. It was made by Mr. Charles Fasoldt, of this city, for the purpose of measuring his rulings and bringing them in accord with the standard inch as defined by the United States Coast Survey. An accurately made cob-web eye-piece micrometer with a fine standard screw of 100 threads to the inch, having a micrometer head divided into a hundred equal divisions, furnishes the means of measurement. The objective used is a Bausch & Lomb Hom. Im., 1-10 inch, N. A. 140. A vertical illuminator, in position just above the objective, receives the light from the lamp, reflects it down through the objective upon the surface of the corpuscle and back to the eye. As the instrument stands, each division of the micrometer head represents a millionth of an inch. Ten revolutions of the micrometer screw causes the spider lines to move over one division, exactly, of a standard micrometer ruling, 1,000 lines to the inch, which is placed upon the stage and magnified by the objective. The power employed is 1,500 diameters. Much higher amplifications could easily be obtained, but a blood corpuscle is rather thick—about 1-12000 inch, and the difficulties of adjustment and manipulation increase rapidly with the higher powers. So a moderate amplification, which makes a corpuscle appear ½ inch or ¾ inch in diameter, is used.

The process of measuring is as follows: The spider line is brought to a certain zero point; a perfect blood corpuscle is brought in exact optical contact with the line, by means of the fine stage movement. The spider line is then made to move across the corpuscle until the exact opposite edge is reached. The divisions on the micrometer head are read off and recorded.

The spider line is then returned to the zero point for the next corpuscle. All the perfect corpuscles in one field are brought into place and measured before moving to a new field. If a dishonest or careless selection of very large or small corpuscles were made, a very unusual result might be obtained. With an amplification of 1,500 or 2,000 diameters, differences in magnitude of 8 or 10 millionths of an inch might be detected. I measured a single corpuscle fifteen times in succession, and found the difference between the greatest and smallest figures obtained to be 8.75 millionths, which is equal to 1-114285 part of an inch.

The following is taken from Wormley's table of blood measurements:

Man,	1-3250	inch,	= 308	millionths.
Guinea pig,	1-3223	"	= 310	"
Muskrat,	1-3282	"	= 304.6	"
Monkey,	1-3382	"	= 295.4	"
Dog,	1-3561	"	= 281	"
Rat,	1-3652	"		
Mule,	1-3750	"		
Ox,	1-4219	"		
Horse,	1-4243	"		
Pig,	1 4268	"		
Sheep,	1-4912	"		

The following table is condensed from measurements made by Mr. Fasoldt and myself on fresh blood from six individuals:

No. 1,	mean in millionths,	308.2	= 1-3245	inch.
" 2,	" "	311.5	= 1-3210	"
" 3,	" "	332.9	= 1-3001	"
" 4,	" "	298.3	= 1-3352	"
" 5,	" "	317 5	= 1-3150	"
" 6,	" "	299.5	= 1-3339	"
Mean of all	in millionths,	311.31	= 1-3212	"

The mean of all is a closer figure than those extended in the columns.

DISCUSSION.

Dr. William Hailes, Jr., exhibited a large number of microphotographs of blood cells. He asked if Dr. Shanks would be willing to swear, before a court of law, that a given specimen of blood measured by him, and agreeing with the measurements of human blood just read, was truly and really human blood.

Dr. Shanks said that to such an abstract question he could only say, "No," because there were animals whose blood corpuscles differed from those of man by an amount too small to be detected by measurement; but the question before a court of law would usually be as to whether the specimen of blood is from a dog or other named domestic animal, or from man. Dog's blood is ten millionths, or more, larger than man's blood, and therefore ought to be detected.

Dr. H. E. **Mereness** remarked that the difference between the largest and the smallest corpuscles of human blood in the table given was more than 100 millionths in one individual.

Dr. **Shanks** explained by saying that the small corpuscles in a given specimen were few in number—sometimes but a single very small one would be seen; the same was true of the very large ones; the mean of many measurements—fifty or a hundred—was necessary to an accurate result.

The results given are a contribution to the problem of determining a standard size for human blood corpuscles, and, being made with an unusually accurate instrument, were worthy of record. Further measurements of dried blood from man and animals were to be made.

Dr. S. R. **Morrow** said he had always been curious on one point, viz., whether when dried blood corpuscles were moistened they completely regained their original size and shape. He thought if this were not so that it would be very unsafe to pass a decision as to the nature and source of such corpuscles, whether from human blood or not, on any measurement of them that might be made, however accurate; and yet he thought the guilt or innocence of a man accused of murder had often been made to turn on the statement of a medical expert that a given blood stain was made by human blood; and in the case of dried blood the source of it could not at all be easily determined.

Dr. E. A. **Bartlett** moved that a vote of thanks be extended to Dr. Shanks for his valuable paper. Carried.

PROTRACTED MECHANICAL LABOR, SUBSEQUENT DIPHTHERITIC INFLAMMATION OF PARTURIENT CANAL, AND DEATH OF PATIENT.*

BY T. K. PERRY, M.D., ALBANY.

(Albany Medical College, 1875.)

On September 25 of this year I was called to attend Mrs. X. in her first confinement. She was tall, slight and rather pale. Her age was 22, that of her husband 43, he being very short and stout. The first stage of labor had barely begun.

At 6 A. M., September 26, the os was fairly dilated, but the head had not passed the brim, and the membranes were unbroken and closely applied. Succeeded in scratching quite a rent in the latter, and some little oozing followed, but not enough to stimulate uterine contraction to any degree.

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*Read before the Medical Society of the County of Albany, Wednesday evening, December 9, 1885.

I was dealing with a large head and small pelvis, and, as my patient was becoming quite tired, I resorted to the long forceps. Had some difficulty in applying them, but finally succeeded, and then the tug began. For an hour and three-quarters those forceps remained in apposition, and during most of that time she was straining and I pulling, and once in a while to relieve the monotony she would bear down while I would tug. It was the longest, hardest, most fatiguing delivery I ever assisted at, and the wonder to me was then, and is now, what kept that baby's head on its body. That it did so remain was evidenced by the lusty cry which announced the little one's advent.

No further troubles followed, and a careful examination of genitals showed no injury beyond an ordinary laceration of the fourchette.

On Friday morning, six days after delivery, without apparent cause or warning, the patient had a violent chill, which lasted five or ten minutes, and was followed by vomiting and prostration. I saw her about two hours afterwards and found reaction established; she still felt nauseated and complained of headache. Her temperature was 105°, tongue furred, urine scanty and slightly albuminous, bowels moderately open, no pain nor tenderness anywhere and mental condition good. About three days after confinement her nurse had requested me to "examine the private parts," and I had found the vulva enormously swollen and œdematous. Hot vaginal douches, with fomentations to labiæ, had been continued daily.

On the day of chill I found the parts less swollen, not tender to the touch, but of a rather dark or dusky appearance. I gave the patient at this time a mixture of quinine, whiskey and morphine, but, as she could not retain it, substituted enemata of quinine, with mucilage of acacia, and gave one-sixth grain morphine by mouth. No further chill nor vomiting, and general condition improved for next thirty-six hours. In the meantime, the lacteal secretion seemed fully established, and the child was quiet and thriving.

Was called at 3 A. M., Sunday, the 4th of October, and learned that a most violent headache, with excessive diarrhœa, had been in existence for some hours. The pulse was about 120, temperature 105°, tongue moist and mind clear. Ordered baby to be taken from breast and the secretion of milk restrained, while hot fomentations, douches and morphine were continued.

Seven hours later there was unwarranted slowness in articulation, but no further chill nor vomiting; diarrhœa continued. Ordered bismuth and opium, and continued other treatment.

On Monday evening Dr. Franklin Townsend saw her with me. She was *in articulo mortis.* We administered ether and brandy every five minutes and applied other restoratives. She died about one hour after our visit.

At the time of the doctor's visit, notwithstanding he fully realized the hopelessness of any remedial means, a most painstaking and thorough examination was made. At its conclusion, and with the history as recited by me, he said he could not agree in the diagnosis of puerperal septicæmia, nor did he think it a case of peri-metric or metro-peritonitic trouble, although evidences of slight pelvic peritonitis existed. He believed it a case of "puerperal diphtheria," and, although in private practice he had never encountered the affection, in hospital experience he had seen and treated it.

This was a complete surprise to me, and I could not credit it, as to my mind no evidence of this disease existed, there being neither sore throat, nor patches on any part of the body or genitals. To be sure, the mucous membrane of vagina or cervix had never been examined, and, in fact, such would have been an almost impossible act under the circumstances. However, the doctor had rested his diagnosis on two important points—the excessively ichorous and fœtid nature of the discharge and the involvement of lymphatic glands in the immediate vicinity.

Much as I discredited the diagnosis, the astuteness of my friend's observations were made markedly manifest in the subsequent history of events.

Our patient died about midnight, October 5, ten days after confinement, and on the following day I made no visit to the house. On the next, I was asked to see the child, and to my very great surprise I found the little one suffering from well-marked diphtheria. The umbilical region was one large patch of deposit, with an outlying angry blush, several inches in diameter. The fauces and nares were involved, and the little sufferer died that night.

I was now fully aroused to the exigencies of the occasion, and at once took steps to quarantine the house and further protect its inmates. My knowledge had, however, come too late, and on October 9 I was called to see a young lady member of the household, who had been taken violently ill. The case proved one of typical diphtheria, and the amount of faucial deposit was, in the next twenty-four hours, very great. She recovered after a long and severe seige.

During her sickness the two remaining younger members of the family were both prostrated with the disease, though neither of them alarmingly so. This was the last of my trouble in that house, and no further deaths.

I have perhaps made an unnecessarily long recital of this case, and for the following reasons:

First. The extremely meagre literature of the subject. For, while it has long been known with what tenacity and even malignancy the *materies morbi* of this affection will attach itself to open or abraded surfaces on any portion of the body, still, the fact remains that diphtheritic inflammation of these parts, outside of hospital walls, is a stranger. So far as my researches have led me, I have found but three articles worth citing at this time—the one in "Ziemssen's Cyclopædia," the paper by Dr. Pallen in *American Journal of Obstetrics* for 1876, and the last and best of all, Dr. Garrigues' article in same journal for 1885, October number. This latter gentleman, in reporting twenty-six cases, had never encountered in private practice but two.

Second. It is an undisputed fact that diphtheria never originates *de novo*, and yet in this instance we are confronted with a case in which the most careful investigation of sanitary surroundings gave no light as to its origin.

It would seem, then, that there remains but one loophole—the doctor. Could I have been the unwitting and unwilling cause? We were having an epidemic of the disease in our city, and I had been treating the disease daily for months. But this proves nothing. I had attended during the two weeks preceding my patient's sickness eight cases of labor, three of which were instrumental, and not an untoward symptom followed. Following her death, during two weeks I attended five more, two being instrumental, the identical forceps being used each time and always kept in the same bag. There were no unfavorable terminations. Furthermore, I have each year, for years, seen and treated a large number of cases of diphtheria, and this is the first instance of the kind I have ever witnessed, notwithstanding I have always during the epidemics enjoyed a fair amount of obstetrical work.

DISCUSSION.

Dr. F. C. **Curtis**, being called upon, said that as to the cause of diphtheria in this family he could not give an opinion, but he would say that no physician was a carrier of diphtheria from one house to another after having made a short visit. Children going to school have it conveyed to them by adjoining seatmates. The physician may have carried the virus to his own family, and possibly there was room for similar opportunity due to the prolonged stay that Dr. Perry made, but he did not think it probable. The sources of diphtheria are diverse, and the epidemics have been traced to such divers conditions that it is impossible to say just what exposure will originate diphtheria in a given case. My attention has been attracted within a week to the village of Coeymans Junction, where diphtheria had been prevalent for some time, to study up the source of the disease. I found a condition which is now to be abolished; that is, a water-soaked ground, sufficient to cause standing water in any of the cellars of the village. Although a city has its sewers, yet diphtheria may originate in the districts of the city where the sewers are not connected. The disease may be caused by the simple products of decomposition. More attention should be given to the accumulation of filth, stagnant water, etc., matters which may be overlooked when searching for more marked conditions.

Dr. A. **Vander Veer** asked Dr. Perry if after using the forceps he had applied an antiseptic to them.

Dr. **Perry** said he used simply soap and warm water.

Dr. **Vander Veer**: I believe that many of our cases of diphtheria have been developed by bad surroundings. I remember accompanying another physician to the house of a patient. We passed through a valley up the mountain sides of a little hamlet, a distance of two or three miles. As we neared the house I remarked how nicely situated it was and what a healthful place to live, when the doctor said that he had had three of the worst cases of diphtheria there that he had ever had. On looking into the sanitary surroundings, he found that there was a stream of water back of the house that had changed its course a little and had saturated the cellar where the cabbage and potatoes were kept. I think that the atmosphere may become so impregnated with morbific matter as to become a cause of diphtheria.

Dr. F. **Townsend**, Jr.: During a recent epidemic of diphtheria there was a district on Arbor Hill where the atmosphere was impregnated at the time with a peculiar odor which is more or less characteristic of this disease.

Dr. H. **Bendell** spoke of two cases of diphtheria of the eyes. In both cases the surroundings were good, and he thought that the disease was caused by germs that were floating in the air and came in contact with the eyes. The disease was of a purely local character.

Dr. S. R. **Morrow**: If Dr. Perry attended other diphtheritic cases in the same locality in which this patient was ill, the germs were probably floating in that vicinity, and the patient being in a state that caused her to be susceptible to the diphtheritic germ, contracted the disease in this way.

Dr. **Perry**: I think Dr. Morrow has echoed my sentiments. I think there must have been some constitutional susceptibility on the part of the patient.

CASE OF PROTRACTED MECHANICAL LABOR FOLLOWED BY DIPHTHERITIC INFLAMMATION OF THE PARTURIENT CANAL.*

BY JOHN E. HALL, M.D., GREEN ISLAND.
(ALBANY MEDICAL COLLEGE, 1877.)

June 24, 1881, I was called to attend Mrs. J. K. in her first confinement. She was a lady of medium build, dark hair and skin, age 30, born in Troy. Her labor was a little harder than the average, so that after having been with her some six hours I applied my small forceps, and she was very soon delivered of a strong, healthy boy weighing about nine pounds. She progressed well for two or three days, with the exception of an unusual amount of pain in the abdominal region and a slight rise of temperature. On the fifth or sixth day her temperature rose to 105¼°, with excessive pain in the abdomen. A vaginal examination revealed extensive metritis, and the vaginal walls largely covered with a complete diphtheritic membrane.

This occurred in the early days of July, with the atmospheric temperature at 90° every day, and the patient lived on an upper floor under a flat tin roof. I took the patient's temperature three or four times a day for thirteen days in succession; for six consecutive days her temperature was not less than 102¾° and never above 105¼°; pulse from 110 to 130. During this time she was unable to pass urine, and on one of these days I drew off over sixty ounces. I shall never forget the condition in which I found her as I entered the room about 5 P. M., July 4th. She was lying in a small bed-room situated in the southwest corner of the house, gasping from the excessive heat of the day and fatigued with the noise of twenty or thirty boys playing near her window. The exhaustion was so great that death seemed to be very near. I immediately pulled off my coat and remained with her two to three hours, and by the use of ice-cold cloths and whisky I was able to leave her in a more favorable condition. The progress for the next ten days was gradual, and she was confined to her bed for the entire month of July. She rode out for the first time on the 10th of August.

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*Read before the Medical Society of the County of Albany, Wednesday evening, January 13, 1886.

From July 1 to 10 there was excessive diarrhœa, which was treated by hypodermics of morphia and enemata of laudanum and starch. The local treatment consisted of carbolized injections of warm water every three or four hours. Internally, milk punch and other supporting measures.

She made a good recovery, and has since borne children with no such unpleasant complications as with the first.

As to the origin of the diphtheritic poisoning: I had not had a case of diphtheria for months, as far as I could remember. I used only those instruments that I had been and am still using, and had never had a similar case before or since that date. Hygienic surroundings were good. I do not think there had been a case of contagious disease in that proximity for several weeks.

RECTAL ALIMENTATION.*

BY W. O. STILLMAN, A.M., M.D., ALBANY.
(ALBANY MEDICAL COLLEGE, 1878.)

My attention was first called to the subject of rectal alimentation in 1879, through a conversation with, and an article by, Dr. Andrew H. Smith, of St. Luke's Hospital, New York. This was about the time that the papers by Dr. Kaufman (*Deutsche Zeitschrift für Praktische Medicin*, No. 44, 1877) and Dr. Brown-Séquard (*London Lancet*, Jan. 26, 1879) had excited special interest in the subject. Other publications, of about the same date, increased the interest. Among these may be mentioned a paper read before the New York Academy of Medicine, December 20, 1877, by Dr. Austin Flint, Sr. (see *N. Y. Medical Record*), a thin octavo volume by Bodenhamer (Wm. Wood & Co., 1878), on "Rectal Medication," and articles or reports in the "Proceedings of the Therapeutical Society," No. XXVIII., 1878, and the *N. Y. Medical Journal*, No. 29, 1879, etc.

Of course, this was not the first time that rectal feeding has excited special interest in the medical world. Herodotus mentions that the Egyptians used clysters at certain times for their health, and the Greeks employed wine, whey, milk, ptisan, broth of spelt, etc., for the same purpose. The Romans did not lose sight of so valuable a sustaining treatment, and there is reason to think that the practice has been continued by the inheritors of Greek and Roman civilization pretty steadily up to this time. The use of pancreatized enemata has been practiced for over two hundred years, mention being made of it in a Latin treatise published in 1671. An Italian professor, Bernardin Rammazzini, in 1691, sustained a female patient more than two months (sixty-six days) by means of exclusive rectal feeding, and saved her life. During the eighteenth and early part of the present century the bibliography of the subject has largely expanded, and the practical adaptation of rectal feeding to the every-day needs of practice has been rapidly recognized, particularly during the last ten or fifteen years. Among the earlier contributors to the subject, during this period, are Stüver (Jena), 1718; Rautsch (Erfurt), 1748; Trillerus (Wurtemburg), 1750; Diaper (Edinburgh), 1754; Henne (Wurtemburg), 1756; Bergmann (Leipsic), 1757; Meyer (Göttingen), 1790; Blyth, (London), 1800; Lefebre (Paris), 1811; Matchell (London), 1818; Senné (Paris), 1840; Voillemier (Paris), 1842; Lenoir (Paris), 1853; Woodward (Chicago), 1859; Raffaele (Naples), 1862, and others. As I have said, the interest has greatly increased during the last few years, and contributions to the study of the subject have been made by most European nationalities, as well as by Americans. For the years 1878–9 I find records of nineteen publications relating to this subject.

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* Read before the Medical Society of the County of Albany, Wednesday evening, January 13, 1886.

For the most part, I think that the attention of the profession has been directed to the utility of rectal feeding for sustaining life when, for any reason, the stomach quite fails in its functions. Dr. Flint mentions a case in which a woman was almost wholly nourished in this manner for five years (*Am. Practitioner*, Jan., 1878), and who, for a year and a quarter, received food in no other way. Dr. Kaufman states that in seven patients suffering from cancer of the œsophagus life was sustained, by nutrient enemata, on an average of nine months. President Garfield's physicians claim that his life was lengthened several weeks by this means. The value of such treatment scarcely admits of doubt; and while I have reviewed the subject as relating to rectal alimentation in general, it is to that particular phase of the subject which may be called supplementary rectal feeding that I wish particularly to call your attention.

By supplementary rectal feeding I mean the use of nutrient enemata while the stomach is yet performing its functions to quite a considerable extent. There is a large class of cases, particularly including women, in which general debility and weak assimilative power have rendered them almost bedridden for, perhaps, years. "There are," to use Dr. Smith's words, "a variety of conditions of the system that have this in common, that the stomach, though not the seat of structural change, is what is termed, in popular language, *weak*. There is little desire for food, and the food that is acceptable is not of a nourishing character. If a larger amount of food is forced down, or if something more solid is taken, the result is either vomiting, or the flatulence, or diarrhœa, which depend upon the passage of undigested food into the intestinal canal." The person therefore lives in a state of semi-starvation, and the poverty of the blood which originally caused the weak digestion, is in turn increased by the gastric feebleness, until at last there seems no rescue from the unfortunate complications. Marasmus and the so-called "general failure of the vital powers" have seemed to me often dependent upon such a condition. Tonics, stimulants and hæmatics are many times tried, in such cases, in vain. Death from exhaustion can be written in more cases than we at the time, perhaps, realize.

It is in such a class of cases, as well as in mild forms of certain affections of the stomach, or its nerves, as in sub-acute or chronic gastritis, gastralgia, nausea, etc., that I particularly propose the use of supplementary rectal alimentation, and have seen much good result from its trial. It is worth far more than tonics, pepsins, and patent food stuffs, in many cases, and the only thing which seems to stand in the way of its more common use is the noticeable disinclination of many members of the profession to its prescription. It is so easily done and of such great value that any such impediment is greatly to be regretted.

Since the publication of Dr. Weir-Mitchell's wonderful little book on "Fat and Blood" there has been, I think, a marked impulse, which has resulted in carrying the "supporting" plan of treatment to its farthest limit. It is more clearly recognized that "the chances for recovery, in the vast majority of cases, are promoted by keeping the nutrition as nearly as possible up to the normal standard."

I can recall more than thirty cases in which I have seen the results of supplementary rectal feeding, aside from cases of ulcer, cancer and obstruction, where exclusive rectal feeding was employed, and there have been very few failures of satisfactory results. Occasionally an irritable rectum precludes all attempts at rectal alimentation. Usually a few drops of tincture of opium, and the use of very small enemata at about the temperature of the body, slowly injected, will overcome this. There is, to my mind, a decided choice in the injection to be used. Dr. Flint, following Prof. Leubes' suggestion (1872), uses beef partially digested. Dr. Smith makes a strong plea for defibrinated blood. Dr. Bliss, of Washington, praises beef peptonoid very highly. Many prefer milk, often with egg added, or in the form of a punch. I have found no objection to the milk, and often have used it pancreatized. Broths, cream, beef extract, etc.. have all been used. Beef, digested, is considerable trouble, and I think not as easily absorbed as milk. Blood, in my experience and that of others, often produces a very disgusting odor about the person, and is inconvenient or expensive in dry form. The only objection to beef peptonoid, of which I know, is its expense, a matter of consideration in many cases. It seems to answer the purpose admirably. Milk, however, answers all indications, it is cheap, at hand, and contains all the nutrition required by the body. At first I used it partially digested with pancreatine, and now occasionally with Fairchild Bros.' Extractum Pancreatis, which is an excellent preparation. The milk may be digested with the Extractum Pancreatis by dissolving five grains of the powder, with fifteen grains of bicarbonate of soda, in about four ounces of water. This should be done in a quart bottle, and a pint of pure, fresh, warm milk added to the mixture. In thirty minutes digestion will be accomplished, if the bottle has been placed in water of the temperature of 100° Fah. It should then be kept on ice until required.

Ordinarily the plain milk, warmed, and injected about two ounces at a time, repeated in half an hour. or more, if borne well, until six or eight ounces have been taken, answers the purpose. I have not found it necessary to use the colonic tube, and have had no experience with rectal feeding for the vomiting of pregnancy nor as a sustaining measure in phthisis.

There has been considerable discussion as to the digestive powers of the rectum and colon. Voillemier (*Bulletin Soc.*

Anat., Paris, 1842, No. XVII.) reports a case in which an artificial anus existed above the sigmoid flexure, through which it was found that the injecta had become perfectly emulsified. The presence of lymphatics in the colon and rectum was demonstrated as long ago as 1732, by Winslow, and, in 1767, by Haller, and the former showed the presence of chyle in them. It has been claimed that a reversal of the ordinary peristalic action of the intestines takes place, and that the food is really carried to the usual place of digestion. Whatever may be said, however, the clinical fact remains that certain foods, digested or undigested, are taken into the system when thrown into the rectum; that the power of absorption there may be good when the stomach is weak and rebellious; that it is assimilated, for the body gains in flesh and power, and that there may be merely the customary evacuation as an excretory resultant. As far as I am aware no danger attends feeding by the rectum, when conducted with ordinary care and intelligence on the part of nurses or attendants.

"THE SPOOL OF THE BREAST."*

BY H. V. HULL, M.D., SCHENECTADY.
(ALBANY MEDICAL COLLEGE, 1874.)

An Irish woman, a few months since, brought to the writer a girl of about thirteen years of age suffering from a slight dyspepsia, one of the prominent symptoms of which was nausea. Her mother, who is an ignorant Irish woman, gravely asked if I did not think that the "spool of her daughter's breast was fast," and whether I could not "loosen it" for her.

Never having heard this expression made use of before, I questioned the mother regarding what she meant by it, and was informed that she had known a young girl a few years ago who was "handled just like this one," and who was taken to an old woman in the "Old Country," and after examination of the girl the wise woman immediately delivered herself of the opinion that what ailed the girl was that "the spool of her breast was fast to the spine of her back." The aforesaid wise woman then proceeded to "loosen the spool," and the process she made use of, according to my informant, who was an eye-witness of the operation, was as follows: She took a glass tumbler, and, as near as I could understand from the woman who told me, she set fire to a wisp of paper, threw the latter into the tumbler, and then placed the glass upon the girl's skin exactly over the ensiform appendix.

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* Read before the Schenectady County Medical Society, at the annual meeting, Tuesday, January 12, 1886.

The rationale of this proceeding was explained by the manipulator to be something as follows, viz., that "if the spool was fast to the spine," then the tumbler applied in this manner would suck up the skin into itself, and at the same time would "loosen the spool;" but if the "spool was not so fastened, then when the tumbler was applied it would have no power to draw the skin into the glass. In the instance related to me the glass very naturally stuck to the flesh, the latter bulged up into the tumbler, and after the operation had been performed the patient was told that now, as the "spool was loosened," she would soon be entirely well again, and, in fact, the girl did afterwards improve physically. A logical mind would be troubled with doubts as to whether the subsequent improvement was owing to the manipulation of the skin in the præcordial region or was merely an occurrence which happened to take place after such manipulation. The relatives of the girl not being affected by such considerations, quite naturally gave the operation all the credit for the good result.

In the case of the girl who was brought to me, in answer to her mother's question I could only say that I knew nothing of any such disorder as the one she spoke of, nor, indeed, had I any knowledge of any organ called the "spool of the breast," but that in her daughter's case I recognized the presence of the disease indigestion, and that I could probably remove the symptoms of that disease, provided my advice was followed.

Since my conversation with the mother of the girl spoken of above, I have inquired of several middle-aged and elderly Irish men and women about the disorder just referred to, and most of them state that they have frequently heard such a disease spoken of, and also being treated, and represented as being cured, when they were in Ireland, but they also say that nothing seems to be known about it here in America. I also learned from them that when a person in Ireland is supposed to be afflicted by this disease they do not usually apply for relief to physicians there, but rather to some elderly woman who has a supposed knowledge of sickness, though in some few instances there are old men who profess to be able to "loosen the spool of the breast."

Being desirous of finding out the true meaning of this proceeding, I ventured to address a letter to Dr. Lombe Atthill, of the Rotunda Hospital, Dublin, in which I asked if he could enlighten me regarding the matter. Dr. Atthill, in answer, writes as follows:

> In reply to your questions, I have to inform you that the ignorant poor Irish apply the term "spool of the breast" to the lower end of the sternum and xyphoid cartilage, and they imagine that when that cartilage turns in or is depressed, as it is in so many wasting diseases, that this is due to the said "spool" "being down," and they apply a rude cupping-glass to raise it in the manner you have described in your letter.

This is all Dr. Atthill has to say about the matter.

A friend of the writer, who has some knowledge of the Gaelic language, informs me that the word "spool" as used in this connection is probably derived from the Gaelic "speal," meaning a sword. Thus the "speal of the breast," meaning the "sword of the breast," or the ensiform appendix.

This statement explains the use of the expression referred to, but the origin of the custom of drawing out the ensiform cartilage with a cupping-glass is not clear to the writer.

The thought that the facts here given may be of interest to the profession is my excuse for presenting them.

ABSTRACTA.

Vaccination—Whooping-Cough.—Dr. F. W. Entriken (*Cincinnati Lancet and Clinic*) has vaccinated several hundred children to arrest whooping-cough, usually with success.

Variola—Tuberculosis.—Dr. Davy, Cincinnati Academy of Medicine (*Lancet and Clinic*), had a case of advanced tuberculosis, who was attacked with variola, and on recovery from the latter disease all lung trouble was gone, and patient remains well.

Nævus Treated by Ethylate of Sodium.—Paint over the nævus two coatings of the ethylate on two consecutive days; protect the surrounding skin before the application. Superficial nævi are cured on the separation of the scab. Those cases affecting the subcutaneous tissues generally require a second, or even in some cases a third, application. It leaves less scar than nitric acid, and causes less pain to the child.—*Samuel Welch, M.R.C.S., in Brit. Med. Journal.*

Bubo.—Draw off the pus with an aspirator, or use the hypodermic syringe for this purpose. After the pus is removed, inject an ethereal solution of iodoform into the abscess; the ether is absorbed, and the iodoform is very evenly deposited on the walls of the abscess. Then paint the bubo with collodion in which iodoform is dissolved; apply several coats. These compress the bubo, so that we have the benefit of pressure in addition to that of the iodoform stimulant, antiseptic action inside. Under this treatment the sores on the penis heal more regularly and rapidly. This practice is better than the slashing one.—*Georgia Eclectic Medical Journal.*

Pneumonia Treated by Intra-Parenchymatous Injections (*L'Union Médicale*, Aug. 22) of mercuric bichloride solution, 1 to 40,000 of water, in three or four places in the hepatized tissue on the third or fourth day, preferably at the periphery of the lesion, causes (1) immediate diminution of crepitant râle and the tubular breathing; (2) later, a transient rise of temperature; (3) next day, general improvement and precocious defervesence; (4) early resolution, especially in hepatized parts which have not treated. After the introduction of the sharp needle, before the syringe is fitted on, a few drops of blood are allowed to escape, but injection must not be delayed or needle becomes plugged. Puncture of a healthy lung or of tuberculous lung does not as a rule yield blood.

Tubercular Meningitis Cured by Iodoform.—The patient was a boy eight years of age, whose mother had a family history of phthisis and four of whose brothers and sisters had died from tubercular meningitis. The boy had headache, torpor, convulsions, strabismus and pyrexia. After a week's treatment with calomel and iodide of potassium he was distinctly worse, unable to take food or medicine, and presented chronic spasms of limbs and face. The head was then shaved, iodoform ointment (1 to 10) rubbed in, three or four times in the day, and an oil-skin cap put on. The next day there was decided improvement. Consciousness shortly afterward returned, accompanied by coryza, redness of the lips, irritable cough, and odor of iodoform in the breath. The child was soon in good health.—*British Medical Journal*, Nov. 21, 1885.

Disinfection of Sleeping Apartments.—Professor König, of Göttingen *Centralblatt für Chirurgie*), while practicing medicine in Hanau, rid his bedroom of bugs by fumigating the apartment with corrosive sublimate. The same means was afterwards found effectual in destroying the infectious elements of contagious diseases in private houses after scarlet fever or measles, and in hospitals after erysipelas or pyæmia. About two ounces of corrosive sublimate are put on a chafing-dish, the windows and doors of the room being closed. After four hours the apartment is thoroughly aired. The person entering the room should take the precaution to hold a sponge or a cloth over the mouth and nose in order not to inhale the vapor. The following day the windows are again closed, and some sulphur is burned in order to neutralize any of the mercurial fumes which may still linger about the furniture and other articles. The room is to be again aired and cleaned, and will then be ready for occupancy.—*N. Y. Med. Record.*

A SMALL-POX REMEDY.—I would again call the attention of physicians to the value of sulpho-cyan-allyl (the volatile oil of black mustard) as a remedy in small-pox. I first introduced it to the notice of the profession in 1873 by several original trials, and an incidental explanation of its *modus operandi* when speaking of excretory products generally [see pages 59 and 79, *Medical Union* of that year]. I have since had additional opportunities to test its value, and hesitate not to compare its specific importance to that of quinine in ague. It modifies the virulence of the disease—prevents pitting, often confining an attack to mere subjective symptoms. In cases of repercussion, nothing equals its action for reëstablishing a *status activus*. Ptyalism or a urinary crisis after its exhibition indicates a reduction of quantity or a remission of frequency in its administration. As a prophylactic it may even take the place of vaccination, when the latter is too late after an exposure. The formula is:

℞ Olei sinapis nigri ætherei....gtt. x.
Alcoholis absoluti.........gtt. xx.
M. Fiat solutio.

S. One drop in a little milk or some gum-arabic water, every two or three hours.—*Frank A. Beckwith, East Saginaw, Mich., in N. Y. Med. Times.*

HEALTH RESORT (Mr. Clarke Whittier and the New City of Whittier in Western North Carolina). Clingman's Dome, by the late geological survey, the highest peak east of the Rockies, is on the property. This mountain at its top is asserted to be different from any other in the known world as follows: Rank grass grows where the timber is thin, on the very top, 9,616 feet high, and a heavy growth of timber and springs of water a few rods from the apex. It is proposed to make a graded carriage road to the summit, where the tourist can, with the naked eye, in a clear sky, see five states. There is no stagnant water in the whole of the 80,000 acres. The veritable speckled trout abounds in a thousand streams on the property. Consumptives breathe easier and may live longer. The hotel is to be called the Twin Mountain House, being situated between two elevations of 200 feet high in the town sight. This region is destined to be the great resort from the level plains in the southeast in the summer and from all sections of the northeastern states in the winter. All purchasers of land in Whittier, or in the 80,000-acre tract will agree that in case spirituous or malt liquors are sold, imported or manufactured for use, except as medicine or for arts, the owner shall surrender the land to Clarke Whittier or his legal representatives, on the tendering of the purchase money.—*Blue Ridge Babtist*, Hendersonville, N. C.

MILK CURD.—Dr. James Ritchie, before the Obstetrical Society of Edinburgh: All the specimens of milk were heated to 98.0°, a small quantity of salt was added, then essence of rennet, the mixtures were stirred, then left in the water-bath at about 98.0° for half an hour. After some hours the curd was broken down, and when the whey separated it was filtered off. Pure milk showed a very hard curd in large masses. The dilution with water causes the curd to be considerably softer, and specimens diluted with an equal part of water show a softer curd than those which had only a third of water added. The acidulation of the milk and water with 0.02 per cent. of dilute hydrochloric acid causes the curd to be much harder. If, therefore, a child's stomach, in an irritable condition, secretes very acid gastric juice, the curd of milk and water will be a hard one. The addition of farinaceous gruels (oatmeal, barley-water, and rice-water), in the proportion of one-third, causes the curd to be in small soft flakes, and it is very noticeable that if such mixtures be acidulated the curd is not much harder. The effect of boiling the milk is very marked—the curd is in very small soft flakes, so small that it is difficult to remove the whey. But when boiled milk is acidulated, the curd is much firmer than that produced in acidulated specimens having gruels added. The addition of one-third of lime-water causes the curd to be in small soft flakes, not so soft, however, as those produced in boiled milk. And it is worthy of note that a very hard curd is produced in milk with one-third of lime-water if it be rendered faintly acid. The curd of mother's milk is very soft and in small flakes. The amount of essence of rennet added to the specimens of cow's milk caused them to have an acid relation to litmus paper, but a larger proportion had to be added to mother's milk before the acid reaction was obtained. These specimens confirm the results obtained in practice, viz., the measures of advantage gained by dilution of the milk, the great benefit of boiling it, the marked improvement in quality of the curd if it be kept open by mechanical means, as by the addition of gruel or of lime water. But they show that this benefit is lost in the case of lime-water mixtures if much acid is present, and that under such conditions a softer curd is obtained by mixture with gruels than by boiling only, or by addition of lime water only.—*Weekly Medical Review.*

IODOFORM INODOROUS.—Sulphate of quinia, one part; pulverized charcoal, three parts; iodoform, 100 parts.—*Lancet.*

ALBANY MEDICAL ANNALS:

A Journal of the Medical Society of the County of Albany.

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Vol. VII. FEBRUARY, 1886. No. 2.

BOOK NOTICES.

ACNE; ITS ETIOLOGY, PATHOLOGY AND TREATMENT. By L. Duncan Bulkley, M.D. G. P. Putnam's Sons.

Eczema is the most important disease that comes to the physician for treatment. A good sized volume was written four years ago upon it by Dr. Bulkley; now he presents its companion, upon the most common and only secondarily important disease to the profession. It is of about the same size, and is in the same sage-green cover, and has the same handsome page that its predecessor appeared in, and which its publishers affect.

Since acne occurs to a good proportion of humanity, and in its severer degrees it constitutes one of the most distressing of skin affections, and also being a reflex disease, and so an index, to some degree, of internal systemic disturbance, the propriety of going to such length as to devote one considerable volume to its consideration becomes apparent. The writer is then at liberty to go to all reasonable length in presenting his theme. Thus, for instance, the opportunity is afforded—and our author has availed himself of it—to point many phases of his subject by the recital of illustrative cases. In all its various sided bearings the monograph gives the chance of picturing the disease in a way that it is not possible or appropriate when it is but one of many in the volume. A chapter is given to Anatomy, with numerous illustrations. Another very important one is on the Etiology, which, in this disease, is somewhat less elusive than in others. Dr. Bulkley does not strain the subject of his volume by including in it consideration of the simpler, non-inflammatory forms of sebaceous gland diseases, but the propriety of the word acne forming a part of their nomenclature may be doubted. His definition of acne, as a functional or inflammatory disease of the sebaceous glands, is hardly in keeping with the root idea of the word, which ought to be limited to the inflammatory diseases of these glands. It would have been very inappropriate though to omit the functional diseases, and the present writer thinks that most of the classifications fail in this respect, as Dr. Bulkley has not in his, because they divorce inflammatory acne from its place of proper association under glandular diseases.

The larger half of the volume is taken up with these more important inflammatory diseases, or acne proper and acne rosecea. A good many illustrative cases appear in the text, and numerous cuts. With much propriety, a chapter on diet and hygiene, upon which hangs so much of the etiology and treatment of acne, follows, and the book closes with one on therapeutics, principally made up of numbered formulæ, to which reference is made through the earlier pages. Formularies are a justifiable addition to a book on dermatology, at least as regards many external applications, for they are more likely to be pleasant and appropriate if the result if study than of an offhand prescription. The extent of the bibliography, and the time it must have taken to search it out from books and periodicals, is seen in eighteen closely printed pages. "Acne" is a worthy companion to "Eczema and its Management," and is a creditable contribution to the American literature of the subject of dermatology as well as a credit to its accomplished author.

F. C. C.

INDEX CATALOGUE OF THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE, UNITED STATES ARMY.

Six ponderous quarto volumes have been issued of this great work, being prepared under the direction of Dr. J. S. Billings. It is arranged by subjects and authors, and the six volumes of over a thousand closely printed pages bring the alphabet down to "Insfeldt." There are fifty pages of reference under Insane and Insanity, and thirty under Hygiene, which gives some idea of the vastness of medical literature and this attempt to classify it.

F. C. C.

Epitome of Diseases of the Skin. By Louis A. Duhring, M.D. J. B. Lippincott & Co. 12mo, 130 pp., cloth, 60 cents.

A protest is generally raised against the *multum in parvo* class of books, but it may be assumed that they have their place, if such a man as Dr. Duhring thinks one of them worthy of preparation. This is a condensation of sixteen reported lectures to the graduating class of the University of Pennsylvania. The classification adopted in his compendious work issued some years ago is followed. It would appear more reasonable to include acne and rosacea under the class of diseases of the glands, for reasons noted above. The consideration of skin diseases could not be possibly more satisfactorily and practically done in such condensed shape, and the "Epitome" will find its way into the hands of many appreciative readers. F. C. C.

Practical Notes on the Treatment of Skin Diseases. By George H. Rohé, M.D. Price 25 cents.

This is really but a fragment, though complete in itself, of the subject. The author proposes to extend it by additional volumes, so to call them, on other parts of the general subject. In this one, diseases of the perspiratory and sebaceous glands are treated, in about sixty duodecimo pages. It is put in a readable way, and is good as far as it goes. No doubt many will find suggestions that will be invaluable to them, although, as a rule, this sort of book is to be commended.

Electrical Medication. Daniel Clark's new system. By A. W. Tipton, M.D., Topeka, Kas. (formerly of Jacksonville, Ill.) Chas. J. Johnson, printer, Chicago, 1885. 264 pp., 8vo, cloth, $3.00; library binding, $4.00.

The author claims "almost miraculous" results from electricity, but advises drug treatment in addition. He gives many prescriptions, which are unfortunately written in mixed English and Latin, in mixed cases. Homœopathic treatment is also given.

In using electrodes with cords of unequal length, "when the part under treatment appears between the positive pole and the central point, it is treated with the *inward current*," and *vice versa*, when the shorter cord is between the patient and the negative pole, the patient receives current driving *outward*. This theory is the prominent point in explanation of treatment recommended.

That part of the book which tells of man as created immortal rather than to become so when at the resurrection this mortal shall put on immortality, is foreign to the stated subject, and unpleasantly suggests a varnish of religion from a possibly sordid motive.

Essentials of Vaccination: Facts relating to Vaccine Inoculation and its Influence in the Prevention of Small-Pox. By W. A. Hardaway, M.D., Professor of Diseases of the Skin in the Post Graduate Faculty of the Missouri Medical College, St. Louis; Member of the American Dermatological Association; formerly one of the Vaccine Physicians to the city of St. Louis. Published by J. H. Chambers & Co., St. Louis. 1886. 146 pp., 12mo, price $1.00.

"These pages are respectfully inscribed to Dr. Frank P. Foster, of New York city, in appreciation of his many scientific and practical labors in the cause of vaccination."

The subject is of interest to every practitioner. The author is widely known as a dermatologist. The book received favorable notice in our columns in 1882. Its republication is timely.

Mind in Nature. Large double-column octavo, 192 pp., price $1.00. The Cosmic Publishing Co., Chicago, Ill.

The bound volumes of this periodical for 1885 is of good material and nice mechanical execution, making an attractive book for library or parlor. Its discussion of psychological facts is interesting to the public as well as to the physician.

REPRINTS, PAMPHLETS, ETC.

The Medical Record. A weekly journal of medicine and surgery. George F. Shrady, A.M., M.D., editor. Published by Wm. Wood & Co., New York. 28 double-colum quarto pages each week. $5.00 a year.

Braithwaite's Retrospect of Practical Medicine and Surgery. Part XCII., January, 1886. New York: W. A. Townsend, publisher. This half-yearly journal, edited by James Braithwaite, M.D., London, is supplied in conjunction with *The Epitome* (containing in all 1,500 large octavo pages) for $4.50.

The Epitome (formerly *The Quarterly Epitome*) is now issued monthly, in charge of that favorite editor, Wesley M. Carpenter, M.D., and contains an epitome of American medical literature.

The Medical Visitor. T. S. Hoyne, M.D., Chicago, Ill. 10 pp. reading matter, 8vo, $1.00 a year.

Die New-Yorker Medizinische Presse, herausgegeben von der German Medical Press Company. Emil Stoessel, Ph.D., manager. No. 23 Vandewater street, New York, erscheint am 15. eines jeden Monats. Dr. George W. Rachel, Redakteur. Preis: $2.50 per annum. 48 pp., 8vo, Vol. I., No. 1.

Journal of Reconstructives, Dietetics and Alimentation, Vol. I., No. 1, New York, January 1, 1886. 50 cents a year. Wallace Wood, M D., editor. Published quarterly by John Carnrick, New York. Quarto, 16 pages, double column reading matter.

Clinical Notes. Vol. I., No. 1. Edited and published by Charles L. Mitchell, M.D., Philadelphia, October, 1885. "It will cheerfully be sent, as issued, to all who may think it worth applying for."

"Observations upon the Mutual Relations of the Medical Profession and the State." Address by Donald Maclean, M.D., Detroit, President Michigan State Medical Society. Delivered before the society, at Port Huron, June 10, 1885.

"Some Interesting Reflex Neuroses." By John J. Caldwell, M.D., Baltimore, Md. Parke, Davis & Co.'s preparations of Nitro-glycerine, and of other neurotic remedies, were used in the cases reported. Reprinted from *Virginia Medical Monthly*, May, 1885.

"A Study of Epilepsy." A paper read before the American Medical Association. By J. J. Caldwell, M.D., Baltimore.

"Hydrogen Peroxide." By William B. Clarke, M.D., Indianapolis, Ind. Read at the Indiana Institute of Homœopathy, May 18, 1885, and reprinted from *The Chicago Medical Era*, July, 1885. Dr. Clarke reports undoubted case of *phthisis pulmonalis* apparently cured by one month's course of inhalation of peroxide of hydrogen in conjunction with the Declat treatment.

"Typhoid Fever in 1885." Preliminary report, Department of Health, Municipal Department Building, Brooklyn, N. Y., January, 1886. J. H. Raymond, M.D., Commissioner of Health.

Treasury Department, Marine-Hospital Service. Annual Report of the Supervising Surgeon General of the Marine-Hospital Service of the United States for the fiscal year 1885. Washington: Government Printing Office.

"Rectal Medication." By D. W. Cathell, M.D. Reprinted from the Transactions of the Medical and Chirurgical Faculty of Maryland, 1885.

"National Conference of State Boards of Health." Reprint from the Seventh Annual Report, Illinois, State Board of Health, 1885.

"Henry D. Noyes: On the Tests for Muscular Asthenopia and on Insufficiency of the External Recti Muscles." Reprint from Transactions of the International Congress, Copenhagen, 1884.

Caulk's Dental Annual, No. IV., 1885–1886. L. D. Caulk, D.D.S., Camden, Delaware. Price, 25 cents.

Drugs and Medicines of North America; a quarterly. Vol. I., Nos. 8 and 9. J. U. & C. G. Lloyd, Cincinnati. Beautifully illustrated.

Southern California Practitioner, Vol. I., No. 1, Los Angeles, Cal. 36 pp., 8vo, monthly, $1.50 a year. J. P. Widney, M.D., Joseph Kurtz, M.D., Walter Lindley, M.D.

"Transactions of the Medical Society of the State of Pennsylvania," 36th year, held at Scranton, May 27, 28, 29, 1885. Vol. XVII., 516 octavo pages, with charts and illustrations.

The Indiana Pharmacist. Monthly. Joseph R. Perry, editor and publisher, Indianapolis.

"Progress of Electrolysis in Surgery." By Robert Newman, M.D. Read at first annual meeting of the Fifth District Branch of the New York State Medical Association, Brooklyn, October 13, 1885. Reprint from *Gaillard's Medical Journal.*

New York State Reformotory at Elmira, Annual Report for year ending September 30, 1885.

"A New Departure in Uterine Therapeutics: The Dry Treatment." By George J. Engelmann, M.D., St. Louis. Reprint from *St. Louis Courier of Medicine.*

"Notes on recent Progress in Gynecology and Obstetrics." George J. Englemann, M.D. Editorial from *Weekly Medical Review*, J. H. Chambers & Co., publishers, St. Louis.

PERSONALS.

—Dr. C. M. Culver ('81) will remove his office March 1 to 36 Eagle street, Albany.

—Concerning Dr. Wm. J. Donald ('77) *The Journal*, Lanesboro, Minn., October 23, 1885, Robert Donald, editor and proprietor, contains the following:

> In the *Badger Star Monitor*, Tomah, Monroe Co., Wis., we find the announcement given below. The Republican member of the board, Dr. William J. Donald, of Tunnel City, is a brother of the editor of the *Journal*. We tender our congratulations to the trio of doctors:
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> During the past week the following physicians, Drs. Richards and Vincent, of this city, and Dr. Donald, of Tunnel City, have been appointed as a Pensioners' Examining Board by the Pension Department at Washington, with headquarters in this city. Heretofore pensioners have had to go to Mauston, La Crosse or Wausau. According to the custom of appointing such boards, two are Democrats and a third Republican; but, irrespective of party affiliations, the board is a popular one.

—We take the following from the *Albany Journal* of February 12, 1886:

> Dr. James A. McCaughin [A. M. C., '84], one of the volunteer staff at Penitentiary during the typhus epidemic, and who was stricken with the disease about two weeks ago, died this morning at 3 o'clock in the hospital, and was buried to-day. Dr. McCaughin was 25 years of age, and graduated from the Albany Medical College about two years ago. He was born in the old third ward, and was well and favorably known throughout the southern section. For two years he held the position of resident physician at the Almshouse. An earnest and devoted student in the profession he had chosen, he gave promise of becoming a most useful member of it. He was unmarried.

—Married.—Dr. Robert Babcock ('84), formerly house physician at the Albany Hospital, and now of Holyoke, Mass., was married to Miss Ritie Whitbeck, of Coeymans, at the home of the bride, on Thursday, February 18, 1886.

Alumni Reunion, Albany Medical College, occurs on Tuesday and Wednesday, March 2 and 3, 1886. The Alumni Lectures, on "The Physician in his Relations to Private and Public Hygiene," by Prof. S. O. Vander Poel, M.D. (A. M. C., '49), in the Chapel of the High School, on Tuesday and Wednesday evenings. The Faculty Address of welcome to Alumni by Prof. William Hailes, M.D., will be given Wednesday morning, March 3, in Alumni Hall.

OBITUARY.

Dr. Joseph W. Riley.

Joseph W. Riley was born in West Troy, N. Y., November 7, 1861. He received his preliminary education in the schools of the village, eventually graduating from the Troy Academy. In 1879 he entered my office for the purpose of studying medicine, and remained with me a year, after which he entered the office of Dr. James L. Babcock, Albany, and matriculated at the Albany Medical College, from which institution he graduated in 1882, and joined the County Medical Society soon after. Previous to his graduation he was resident physician at the Almshouse, with Dr. O'Leary as city physician.

Upon the death of Dr. Haskins, in 1883, he located in the latter's office, and succeeded him by appointment as city physician of the city of Albany, when only 22 years old, and it was in the discharge of professional duties at the Albany Penitentiary as its attending physician that he contracted typhus fever, which resulted in his death January 15, 1886.

There is much that is truly pathetic in the death of a physician when such is the result of disease contracted by attendance upon those whom his skill is trying to save. This is eminently true and comes with greater force when we see one taken of such tender professional years as was Dr. Riley. The great bustling world of which we form a part is apt to ascribe little that is unselfish to any of our profession in the regular discharge of his work. To it, care and toil are only means to bring about a competent end; and if in the pursuit of science we fall for science's sake, the world is wont to be uncharitable. To those who are in the profession, and whose lives are a daily refutation of even the imputation of selfish motives, dying in the harness has its commensurate gain. The physician thus "goes, not like the quarry slave scourged to his dungeon," but, in the full satisfaction of having met danger and death for humanity's sake, "wraps the drapery of his couch about him, and lies down to pleasant dreams."

In the brief years of his professional life, Dr. Riley's gentlemanly and courteous manner won him many friends, who are sincere mourners over his untimely death.

A. T. VAN VRANKEN.

MINUTES OF THE SPECIAL MEETING OF JANUARY 18, HELD TO TAKE ACTION ON THE DEATH OF DR. JOSEPH W. RILEY; ALSO OF THE SPECIAL MEETING OF JANUARY 27, TO TAKE ACTION ON THE DEATH OF DR. WARREN H. FOWLER.

A special meeting of the Medical Society of the County of Albany was held in Alumni Hall, on Monday evening, January 18, 1886.

Present: Drs. T. P. Bailey, O. D. Ball, H. S. Case, D. H. Cook, L. Hale, J. C. Healey, P. J. Keegan, M. J. Lewi, W. H. Murray, W. J. Nellis, D. V. O'Leary, S. A. Russell, D. P. Shevlin, James H. Skillicorn, B. U. Steenberg, T. F. C. Van Allen, S. B. Ward.

President STEENBERG called the meeting to order and said: We are again called together to give expression to our sorrow and grief at the loss by death of another of our associates.

Dr. Joseph W. Riley died at West Troy, January 15, 1886.

Dr. Riley was a recent graduate of this college, and one of the youngest members of this Society. Although young, he had already made himself felt in the medical profession of this county.

I enjoyed but a passing acquaintance with him, but I had detected that spirit of interest, ambition and enterprise as elements in his character, which, had well-directed years matured upon him, would have placed him in high rank in his profession.

By his death we are reminded that we are standing in that great field ripening for the harvest. Let us so live, then, that when the reaper shall again come we shall be found ready to be led

"Into the land of the great departed,
Into the silent land."

Dr. MAURICE J. LEWI: Mr. President, I should like to ask whether any gentleman present has prepared an address in the form of a resolution expressing the sense of the Society in the loss of Dr. Riley.

President STEENBERG stated that Dr. Van Vranken was to have prepared a paper to present to the Society, but was prevented from being present, as he had learned by telephone, on account of having missed the train.

Dr. O'LEARY: It seems that Dr. Riley was a student in the office of Dr. Van Vranken before he came to Albany.

Dr. P. J. KEEGAN: Mr. President, I have known Dr. Riley about four years. Ever since he located in my neighborhood we have been intimate friends. I have known him as a man, as a friend and as a physician. I have known him as a man, straightforward generous, upright, firm, yet gentle, with an individuality and independence which prompted him to stand by what he believed to be right, while ready to admit and respect an honest difference of opinion in another. He was a gentleman in the fullest sense of the term, careful in his deportment and language. During my whole acquaintance with him, I never heard him utter a sentence that might not be repeated in the presence of ladies. As a friend he was genial, social, happy, ever ready to enter into the spirit of those with whom he was associated. He was always a welcome member of any social gathering which he honored by his presence. He seemed to be bubbling over with sparkling wit and gayety. As a physician he was studious, observant and industrious, kind and sympathetic. As with every man young in the practice of medicine, much of his work was among the poor and unfortunate, and to this class his manner and word was always as kind and cheerful as to those in better positions of life. He understood the frailties of humanity, and sympathized with their failings, and let no opportunity pass without doing something to elevate their feelings or to alleviate their suffering. Once I visited the Penitentiary with him, and stood by while he attended to his professional duty. After he had seen and prescribed for a long line of sufferers, I asked if he did not find many who pretended sickness to avoid work. His answer was characteristic; he said, "No, and I don't look for such cases. I would rather permit a hundred well men to remain in their cells and rest a day than to send one sick man back to work." Among those whom he treated we hear only words of generous praise. He was proud of his exalted profession. He was devoted to its duties in private as well as in public life. We are here to testify to that devotion. When the unfortunate and malignant disease of which he is a victim made its appearance among those under his care, he shirked no toil, he took no rest; he was with them from early morning until midnight, day after day; he was their physician, their nurse—a laborer even—for their comfort and well-being. His friends remonstrated with him on the great danger to himself from such close and constant exposure; but, while he was fully cognizant of his peril, he felt that duty was higher than self, and he died a martyr to professional devotion to duty in public place.

Dr. D. V. O'Leary: Mr. President, I desire to say a few words of the young physician whose untimely death brings us together this evening, and reminds us so forcibly of the dangers attending a faithful performance of the duties of our profession. I formed the acquaintance of Dr. Riley in 1879. He was at that time a student in the office of the late Dr. J. L. Babcock, of this city, and applied for the position of resident physician at the Almshouse. On account of his youthful appearance I hesitated some time, but finally resolved to give him a trial, and I can say truthfully that I never for one moment had cause to regret that resolution. He was a good student, attentive and faithful in his work, kind to the unfortunate, and his habits were all that could be desired; of vices he had none. During the winter of 1879 and '80 we were obliged to open the Pest-House for the reception of small-pox patients, and the time and care he gave to those who were placed therein, often visiting them after the hour of midnight, convinced me that he would never shirk a responsibility, however unpleasant. In battling with this last disease, to which his frail constitution finally succumbed, I can also bear testimony to this unselfish devotion to duty. For a time there was a question as to the character of the epidemic, but, after it had fully demonstrated its infectious properties, he continued to give all of his time and energy to its suppression. He fully realized the danger to himself, as he said to me a few days before he was compelled to retire that he was aware from his readings that a large percentage of physicians and other attendants in hospital practice are attacked with the disease; yet he continued in the midst of the afflicted, never asking to be relieved until the thermometer indicated in his own person a temperature of 102°, and that the disease had not only full possession, but was well on the road in its work of destruction.

Dr. Riley was possessed of ample means to have enjoyed the comforts and avoided the hardships of the medical profession, had he been so inclined. It was his intention, I believe, to visit Europe in another year to continue his studies, and, I have no doubt, indulged his fancy in many dreams of years of happiness and usefulness, but in this case, as in that of Dr. Snow, who a few months ago seemed to be just standing upon the threshold of a still brighter future, we are warned that death does not always wait for the grain to ripen nor for us to realize our early hopes and ambitions, and that it is well to be ever ready.

Dr. S. B. Ward: Mr. President, I cannot claim to have had any intimate acquaintance with Dr. Riley, but I do not feel that I can let a motion to adjourn be put without saying a few words. I was very deeply impressed with Dr. Riley's devotion to his professional duties, and also with the many excellent points in his character which have been so well shown by Dr. Keegan. During his last illness I was very much impressed by the way in which his father spoke of him. The old gentleman looked at him with tears in his eyes, and said, "Doctor, there is a boy that, from his childhood up, I have never had occasion to correct." Dr. Riley understood almost from the very outset the danger he was exposed to, and that the mortality among physicians was very much larger than among uneducated classes. As Dr. Keegan has said, those who know about it know that he was there from early morning until late at night. I can honestly say that it is a long time since the death of any one whom I knew so slightly has made such an impression on me as the death of this man of whom it has been said, "He died a martyr to his professional duties."

Dr. J. C. Healy: Mr. President, I first met Dr. Riley while he was a student at the Albany Medical College, and at that time I was impressed with that genial, happy way of his by which he attracted every one toward him. He was bubbling over with mirth at at all times. * *

In his care of the typhus fever patients at the Penitentiary he battled faithfully with the epidemic, even after he was himself seized, and knowing well that the mortality among physicians is very great; nevertheless, he went right on, and worked night and day, not only as a physician but also as a nurse and attendant, even stooping to manual labor, moving patients and dragging cots.

The night before he was taken to West Troy I called on him, and he said to me, "Doctor, take my temperature," which was 99° He said, "Why, this is nothing more nor less than a cold; I had a bad chill riding in a hack from the Penitentiary. Nevertheless, I know that I am facing it." He knew that he was staying night and day in an atmosphere that was surcharged with contagion—not like a physician who goes into a sick-room for a short time and then goes out into the fresh air again. He remained at his post until the time when, as a victim, he was carried to his home.

Dr. D. P. Shevlin: By the death of Dr. Riley the medical profession of Albany has lost a worthy representative and this Society a very worthy member. In no way obtrusive, he won the hearts of his associates, and many will miss a true friend. In his professional relations he was faithful, kind, conscientious. Young in years, he died. A bright future was taken from him. He died fulfilling his trust; he died in his endeavors to let others live. As a friend, as a faithful practitioner, as a Christian man in heart and in deed, he may well be held in fond remembrance.

The Secretary read the following communication:

ALBANY CO. PENITENTIARY, *January* 18, 1886.

B. U. Steenberg, M.D., President Medical Society County of Albany:

Doctor—The undersigned, who are prevented from attending the special meeting of the Society, called for this evening, to take action in reference to the death of Dr. Joseph W. Riley, wish to be recorded as expressing the extreme grief they feel at the loss of him who served with them only a few days ago in combatting the typhus fever epidemic in this institution. He was fearless in the performance of his duty, giving to each and every patient a careful examination, which necessitated protracted exposure to contagion. In this way he speedily acquired a knowledge of the disease which made him accurate in diagnosis and extremely successful in its treatment. Although repeatedly warned, he seemed to forget himself and his danger in his desire to provide for the needs of the patients. The history of the last days of his life remain with us as a bright example of heroic professional devotion, to which the practitioners of medicine in succeeding years will look back with admiration.

JNO. BEN. STONEHOUSE,
FREDERICK D. MORRILL.

DR. WARREN H. FOWLER.

A special meeting of the Medical Society of the County of Albany was held in Alumni Hall, on Wednesday, January 27, 1886, at 12 o'clock, noon.

Present: President Steenberg and Drs. D. H. Cook, M. J. Dwyer, F. H Fisk, Lorenzo Hale, C. S. Merrill, S. R. Morrow, W. H. Murray, W. J Nellis, T. K. Perry, W. L. Schutter, John Thompson.

President STEENBERG called the meeting to order, and announced the death of Dr. Warren H. Fowler, of Albany.

Dr. PERRY moved that the President appoint a committee to draft an expression on behalf of the Society, appropriate to the occasion.

President STEENBERG appointed as such committee Drs. Thompson, Murray, Perry, Hale and Morrow.

Dr. THOMPSON, chairman of the committee, read the following memorial and resolutions, which were adopted by the Society, and a copy was ordered transmitted to the family:

Mr. President—The cause of our assembling here in this hall to-day is to do honor to the memory of one of our late deceased members. It is but a few short weeks since we were called together to mourn over the loss to our ranks of one of our ex-Presidents—Dr. Norman L. Snow. But a few days have passed since one of our young members—Dr. J. W. Riley—yielded up his spirit, a martyr to the plague that broke out in our penal institution. Like the true and faithful physician, he stood firm at his post of duty, relieving suffering humanity, until he was carried home to die.

On Saturday, January 23, 1886, Dr. Warren Hamilton Fowler, only son of Dr. Amos Fowler and the late Caroline Harris Fowler, died at the residence of his father, No. 29 Second street, after a long and painful illness with pulmonary disease.

Dr. Warren Fowler was born September 13, 1852, in the town of Sandlake, Rensselaer county, N. Y. In 1854 his parents moved to this city, where they have resided ever since. Dr. Fowler received his education at the Albany Academy, under Profs. Gates and Waterbury. Among his classmates were Recorder Anthony Gould, Dr. Henry Hun and Dr. Franklin Townsend, Jr. After leaving the academy he commenced the study of medicine in his father's office. He attended one course of lectures at the Medical Department of the University of the City of New York during the years 1876 and '77. The following year he went to Jefferson Medical College, of Philadelphia, where he graduated in the class of 1879. While attending college in Philadelphia he had an attack of pneumonia that prostrated him very much at the time. On returning to Albany he commenced the practice of his profession with his father, which he continued at intervals, as he had not fully recovered his strength after his sickness in Philadelphia. He would spend many days and weeks at a time on his father's farm at Sandlake, where he thought he was much benefited by the mountain air. During the spring of 1881 he located in Detroit, Michigan, where he remained one year, gaining a fairly remunerative practice, but he found that he could not endure the cold winds of Detroit, and was obliged to return to Albany. After returning home he located his office on State street, opposite Washington Park, where he resided up to within a few days of his death. Two years ago he had a second attack of pneumonia, after which he was very much reduced in flesh and strength; in fact, he only continued to live by the most careful attention, going to the North Woods and other health resorts. September of last year he thought that the sea air would bring the long-sought-for relief. He visited Pawtucket, R. I. When there a few days, he was taken, while out walking, with a severe hemorrhage from his lungs. For some time his physicians and attendants despaired of his living many days. After a short time he rallied sufficiently to return to his home in this city; but up to the time of his death he remained confined to his room, as the least exertion produced cough and shortness of breathing.

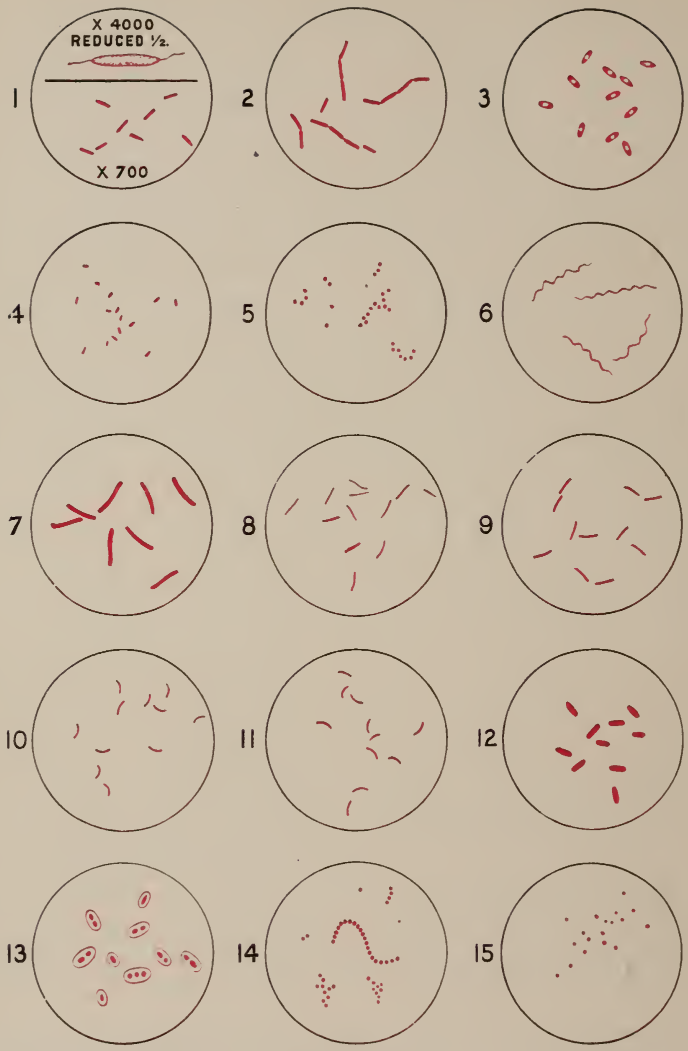
Comparatively few of our Society members were acquainted with young Dr. Fowler, as he was obliged to devote much of his time seeking relief in far-off sections for his fast wasting bodily strength. In conversation he was spirited and communicative. He was thoroughly informed in his chosen profession, and on the topics of the day. Being a great reader from his boyhood, he kept himself well informed on the world's history from day to day by the best newspapers and magazines of the times. He had a very choice collection of books of the best authors that he loved to ponder over during his many leisure hours.

Dr. Fowler lived and died a member of the Fourth Pesbyterian Church, of Albany. In boyhood he was a particular friend of Rev. Dr. Darling's son. The doctor took much pride in teaching the young lads the fundamental principles of Christian truth and virtue which should be observed throughout life. Those teachings made a deep impression on the youthful mind, which he cherished and observed most strictly through life.

WHEREAS, Our Society has learned with deep sorrow of the death of Dr. Warren H. Fowler, after a long and painful illness borne with Christian fortitude, and resignation to the will of his Heavenly Father; be it

Resolved, That we tender our sincere sympathy to the family of the deceased, and that when our Society adjourns we attend the funeral in a body.

W. J. NELLIS, *Secretary*.



BACTERIA

Magnified about 700 Diameters.

1. Bacillus Subtilis. 2. Multiplication by Fission. 3. Reproduction by Spores. 4. Bacillus Septicus (rabbit). 5. Micrococcus Septicus (rabbit). 6. Spirillum of Relapsing Fever (Spirochæte Obermeyeri). 7. Bacillus of Anthrax. 8. Bacillus of Tuberculosis. 9. Bacillus of Leprosy. 10. Bacillus of Asiatic Cholera. 11. Bacillus of Cholera Nostras (Finkler and Pryor). 12. Bacillus of Typhoid Fever. 13. Micrococcus of Pneumonia. 14. Micrococcus of Erysipelas. 15. Micrococcus of Diphtheria.

ALBANY
MEDICAL ANNALS:
A Journal of the Medical Society of the County of Albany.

Vol. VII. MARCH, 1886. No. 3.

THE BACTERIA OF DISEASE.*

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So much has been said and written during the past few years about bacteria and about their relationship to disease that it must be a matter of interest to every physician to see these little organisms which are daily becoming of greater and greater importance in pathology. It was my intention this evening to have exhibited under high microscopic powers a number of different kinds of bacteria, but I find at the last moment that I cannot get a satisfactory light for the microscopes, and therefore we must content ourselves with this plate (frontispiece), which is for the most part copied from the specimens that I had intended to exhibit. I regret this the more because I have very few remarks prepared, as I wished rather to devote the evening to a microscopic study of the bacteria.

You all know that in the air we breathe, in the water we drink, and in the earth under us, there are a great number of globular, cylindrical or filiform bodies, which are so minute that they can be seen only under the higher powers of the microscope, and which, when placed in a suitable medium, absorb food, move about, grow larger, reproduce themselves, and give other manifestations of life. These little bodies are, therefore, living organisms, and upon close examination they are found to consist of a central mass of protoplasm enclosed in a membrane or cell wall. They are really small cells, which, however, differ very much in appearance from the cells with which we are familiar as occurring in the human body. Many of the little cellular bodies have the shape of little rods, and in consequence the whole class have received the name bacteria, from the Greek word *βακτήριον;* "a little rod." The class of bacteria stands very near the border line of the animal and vegetable kingdoms; and although at the present time there is a general unanimity of opinion that they belong to the vegetable kingdom, yet there is still some dispute whether they should be classed among the algæ or fungi.

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*Read before the Medical Society of the County of Albany, February 10, 1886.

It has not as yet been possible to classify all the different kinds of bacteria, but there are three great groups into which they can be divided according to their form. They are, micrococci, bacilli, and spirilla.

Micrococci are spherical or elliptical bodies which very rarely exceed 2 μ* in diameter. They occur either in separate granules, or in rows like a chain of beads, or in quite large groups imbedded in a gelatinous mass, such a group being called a zoöglœa, from the Greek *ζῶον*, "animal," *γλοία*, "glue."

Bacilli are rods, varying in length from about 1 to 6 μ and in diameter from 2 μ down to a diameter too small to be measured. They occur either as separate rods or in the form of dense groups, called swarms, or arranged end to end in long chains, which are called leptothrix, from the Greek *λεπτός*, "fine," and *ϑρίξ*, "hair."

Spirilla are undulating or spiral filaments varying in length from 4 to 40 μ. They occur either singly or matted together in clusters.

The conditions requisite for the life and development of bacteria are (1) warmth; (2) water; (3) oxygen, either free or in combination; and (4) a sufficient quantity of organic matter to serve as food. When all these conditions are fulfilled, the bacteria develop with great rapidity until they have exhausted their supply of food; that is, until they have converted the complex organic molecules either into inorganic molecules or into simpler organic molecules, according as there is an abundant or an insufficient supply of oxygen present. When the organic matter is in solution, and when air or oxygen is artificially supplied to this solution in such abundance that there is always free oxygen present, then the bacteria convert the organic matter into carbonic acid, water and ammonia directly, without the production of any evil-smelling compounds.* When, however, the supply of oxygen is limited, as is always the case in nature, then in the decomposition of the organic matter through the agency of bacterial life certain bad-smelling compounds, such as sulphuretted hydrogen, etc., are formed, and the process is called putrefaction. From numerous experiments it appears that all putrefaction is directly caused by bacterial life. All the dead organic matter in the world, except what is burned and what is consumed by animals as food, is converted back into into inorganic matter by means of putrefaction. Were it not for the bacteria, the dead organic matter would remain in the world unchanged; and, although organic matters sometimes putrefy sooner than is desired, yet, in general, the bacteria perform a very useful and necessary work in removing the dead organic matter from the world and returning it to the inorganic kingdom. They are the great scavengers of nature.

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*μ = micromillimeter = one thousandth of a millimeter.

Figure 1 represents one of the useful bacteria. It is called the bacillus, and sometimes the hay bacillus, because it is found abundantly on the surface of hay. It is found very commonly in putrefying matters, and is about 2 to 6 μ in length and about 2 μ broad. Under high magnifying powers (700 diameters) the bacillus subtilis appears as a short rod, but under the very highest powers (4,000 diameters), and with suitable illumination, it exhibits at each end flagella, which are constantly lashing backwards and forwards during the life of the bacillus. Similar flagella exist on all or almost all of the bacilli and spirilla, but not on the micrococci. The bacteria subtilis, as almost all of the bacteria, can be cultivated artificially either in solutions of organic matter or on a slice of potato or in a solid mixture of gelatin and blood serum. They can be best studied when growing in the solid gelatin, and it is seen that the different kinds of bacteria grow in groups or colonies, which always present the same appearance in the same kind of bacteria, and which differ so greatly in appearance in the different kinds that they can be distinguished from each other by the naked eye.

When their growth and development are carefully observed, it is found that bacteria reproduce themselves in one of two ways—either by fission or by sporification. In the process of fission, the bacterium grows larger, a constriction appears at its middle and becomes so deep that it divides the bacterium into two precisely similar bacteria, which may in turn subdivide. Sometimes before the bacteria separate from each other they each subdivide again, and thus a long chain of bacteria may be formed. The process of fission is shown in figure 2. In the process of sporification, small glistening particles, called spores, appear in the substance of the bacterium, and are set free by the disintegration of the bacterium. They resist injury, such as high temperatures, much more strongly than do the bacteria, and when placed in favorable circumstances they become elongated at one end, grow rapidly, and develop into the adult bacterium. The process of sporification is shown in figure 3. "As far as observation goes, young bacilli invariably grow and multiply by division for some time before they produce spores. Continued vegetation without change of soil is usually terminated by the formation of spores, and these spores, as a rule, will not germinate in the unchanged soil where they are produced" (Gradle).

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* Hoppe-Seyler, Zeitschrift fur Physiol. Chemie, VIII., S. 214.

The bacillus subtilis stands as a representative of the bacteria which are not only harmless, but are extremely useful to the world and to man. Such bacteria surround the body on all sides. They are found in abundance in the mouth, in the intestines and in all parts of the alimentary tract. The tissues of the human body offer such a resistance to them that they cannot penetrate into the human body proper, and they are never found in the blood nor tissues of a healthy person.*

There is, however, another class of bacteria, the members of which, under certain conditions, enter into the body and produce there disturbances which we call disease. There are many diseases each one of which is due solely to the entrance into the body of one or more bacteria of a certain distinct kind. As long as these bacteria are kept out of the human system the corresponding disease will never occur, but whenever these bacteria enter into the body then the disease may occur. The remaining twelve figures of the frontispiece represent some of the bacteria which produce disease, or pathogenic bacteria, as they are called. Each of these species of bacteria is distinct from every other, and although they have been cultivated under a great variety of conditions, it has not as yet been possible to convert one species of bacteria into another, and no matter through how many generations it has been cultivated, the last generation is as virulent as the first, and produces the same disease when inoculated in animals. It is possible, however, to render the bacteria less virulent. There are a number of species of bacteria which, when allowed to remain for months in the same culture fluid, suffer a loss of vital power, and when these weakened bacteria are inoculated into animals, they produce the definite specific disease in a mild form. Such inoculations render the animal more or less insusceptible to the disease thereafter, and this is the principle of preventive inoculation for disease.

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* Virch. Archiv., Vol. 95, p. 401.

Figures 4 and 5 represent the bacillus septicus and the micrococcus septicus respectively. The former is about 1.4 μ in length and 0.7 μ in breadth, and the latter is about 0.5 μ in diameter. Either of these bacteria injected under the skin of rabbits, birds, and some other animals, will cause death in from sixteen to forty hours, with the symptoms and lesions of septicæmia, and in the blood of the animals thus destroyed are found many bacteria similar to those injected, and these bacteria can be cultivated outside of the body through many generations without losing any of their virulent powers. These two specimens will serve as examples of the bacteria of septicæmia, although there are other bacteria which will cause this disease. The bacterium causing pyæmia is a micrococcus somewhat similar to those represented in figure 5.

Figure 6 represents the spirillum of relapsing fever, called the spirochæte Obermeyeri after its discoverer. These spirilla make their appearance in the blood a few hours before the fever, and increase so rapidly in number that during the height of the fever they may even exceed the red blood discs in number, and then disappear as the fever passes off. Although it is probable that the presence of these spirilla in the blood causes the fever, yet it has been impossible to cultivate them outside of the body, so that the experiment of injecting some of a pure culture of them into animals cannot be tried. The spirilla vary from 12 to 43 μ in length and are shaped like a corkscrew, exhibiting from four to ten turns. In figures 4, 5 and 6 we have examples of each of the great groups of bacteria—the bacillus, the micrococcus and the spirillum.

Figure 7 represents the bacillus anthracis, the bacillus of anthrax, the disease called splenic fever in cattle and sheep and, in man, malignant pustule. The bacillus has a length of from 3 to 6 μ and a breadth of a little more than 1 μ, and has been more thoroughly studied than any other bacillus of disease. In the bodies of animals this bacillus multiplies only by fission, but when cultivated or growing outside of the body it multiplies by sporification. The bacillus of anthrax introduced into the body causes first a local abscess, then a swelling of the neighboring lymphatic glands, and then the bacilli appear in great numbers in the blood and death soon results. Like all infectious diseases, anthrax has a period of incubation, which varies in different animals, seeming to depend in part on the size of the animal.

Figure 8 represents the bacillus tuberculosis, which are extremely thin rods varying in length from 2 to 4 μ. These bacilli are found in all tuberculous growths. In young tubercles they are especially abundant in the giant cell. In old tubercles they are found in the periphery, which is the part of most active growth. In the dried or caseous matter no bacilli, but only spores, are present. The bacillus tuberculosis is present in the expectoration of persons suffering from pulmonary tuberculosis. The bacilli tuberculosis can be cultivated outside of the body. They increase in number only very slowly and only when kept at a temperature between 30° and 41° C. When a very few bacilli tuberculosis are introduced into the aqueous humor of the eye of an animal, small gray miliary tubercles appear on the iris and neighboring parts. These increase in number, coalesce, and lead to a general tuberculous inflammation, which destroys the eye. Later, miliary tubercles appear in the neighboring lymphatic glands, and afterwards in the other organs of the body.

Figure 9 represents the bacillus of leprosy, which is a little thicker and longer than the bacillus tuberculosis. This bacillus is always found in the new growths of leprosy, but it has not as yet been possible to inoculate it in animals.

Figure 10 represents the bacillus of Asiatic cholera (the comma bacillus of Koch), which is found in the dejections, in the contents of the intestines, and in the intestinal glands, in cases of cholera. This bacillus has the form of a written comma, and is about 2 μ long and 0.5 μ thick. It is destroyed by acids, and only thrives in alkaline solutions. It can readily be cultivated outside of the body. The normal acidity of the gastric juice kills it, and in order to successfully inoculate it in animals it must be injected into the intestines, where it will meet with an alkaline fluid. When thus injected, it speedily causes death, with all the symptoms and lesions of cholera. The comma bacillus of Koch has been the subject of much dispute, and many observers have claimed that they have found precisely similar bacilli of a more or less harmless nature. One by one, however, these various bacilli have been shown to bear only a very superficial resemblance to the true comma bacillus, and now only one bacillus remains which bears any close resemblance to the comma bacillus.

Figure 11 represents the bacillus which is called the comma bacillus of Finkler and Prior, and which is found in the contents of the intestines and in the recent dejections of cases of cholera morbus. These bacilli are a little thicker than the comma bacilli of Koch, and differ from these latter also in their manner of development and in the effects produced when they are injected into the intestines of animals.

Figure 12 represents the bacillus of typhoid fever. It is shorter and much thicker than the bacillus tuberculosis, and is rounded at its extremities. It has been found in the intestinal follicles, mesenteric glands and spleen in about half of the cases of typhoid fever in which it has been sought. It can be cultivated, but it has not as yet been successfully inoculated in animals, so that its causal connection with typhoid fever has not been satisfactorily established.

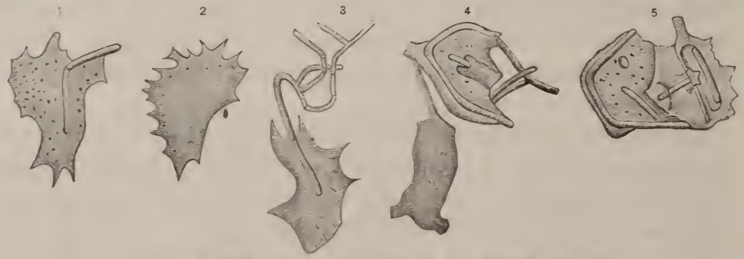
Figure 13 represents the micrococcus of pneumonia, or the micrococcus of Friedlaender. This micrococcus is surrounded by a gelatinous capsule, which usually encloses two or three micrococci, two being thus enclosed with especial frequency. These micrococci occur in the exudation in the alveoli, especially near the walls of the alveoli, and in the expectoration. They can be cultivated outside of the body, and when inoculated in animals pneumonia is produced.

Figure 14 represents the micrococcus of erysipelas, which has a tendency to form curved lines like a chain of beads. It can be cultivated outside of the body, and when inoculated erysipelas results. It has, indeed, been inoculated in man for therapeutic purposes, in the hope of arresting the growth of tumors, etc. From such inoculations it has been learned that an attack of erysipelas protects the person for a variable period from another attack. The immunity usually lasts for three months.

Figure 15 represents a micrococcus which is always found in diphtheritic membranes, although up to the present time it has not been possible to satisfactorily isolate it.

These figures do not exhaust all the varieties of the bacteria of disease which are known. The micrococcus of gonorrhœa and the bacillus of syphilis, of xerosis conjunctivæ, of glanders, have all been isolated, and in all probability cause the diseases from which they derive their names, while many other bacteria have been discovered which probably, although not certainly, cause certain diseases, such as trachoma, rhinosclerma, small-pox, whooping-cough, etc.

Whenever any of these pathogenic bacteria enter into the body, they absorb their food and oxygen from the tissues, and grow and multiply. If this growth and multiplication were unchecked, they would consume all the tissues and soon cause the death of the animal. The animal system, however, possesses the power of acting upon the bacteria and destroying them more or less completely, and as a result of this action a complex of symptoms is produced which is called disease. The essence of many forms of disease consists in a struggle for existence between the bacteria and the animal tissues. In the case of the simplest animals this struggle can be observed under the microscope. The simplest form of animal life is the amœba, which is altogether similar to the lymph corpuscles of animals, and when a little lymph from a frog is placed together with a few bacilli of anthrax on a warm stage and observed under the microscope, some very noteworthy phenomena take place, which have been described by Prof. Metschnikoff, of Odessa,[*] and which are in



Lymph Cells Destroying Bacteria (Metschnikoff).

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[*] Virchow's Archiv., Vol. XCVII., p. 502.

part represented in the accompanying figures. Figure 1 shows a white corpuscle of the frog's lymph which is taking a bacillus into its interior. Figure 2 shows the same corpuscle ten minutes later, when it has not only taken the bacillus into its interior, but has caused its disappearance. Figure 3 shows the same corpuscle a quarter of an hour later trying to take a whole group of bacilli into its interior. Figure 4 shows the same corpuscle a quarter of an hour later when another corpuscle has come to its aid. Figure 5 shows the same two corpuscles ten minutes later when they have taken the whole group of bacilli into their interior. From these figures it appears that the lymph corpuscles possess not only the power of taking the bacteria into their interior, but also of causing them to disappear (figure 2). Other figures of Metschnikoff show how this disappearance or destruction of the bacteria within the corpuscle is accomplished—the bacilli either break up into small fragments or granules or else their outlines become more and more indistinct till they disappear. In this way the lymph cells destroy the bacilli. In other cases the bacilli destroy the lymph cell, causing it to burst and disappear. By further researches Prof. Metschnikoff finds that the bacilli are not destroyed by the fluids in the tissues, but only by the white corpuscles, and it appears that when a white corpuscle has eaten one or more bacilli it thereby becomes changed so that thereafter it is able to destroy the bacilli more easily. Finally, Metschnikoff finds that at certain temperatures the white corpuscles act more strongly and the bacilli less strongly, so that the latter are destroyed by the former, while at other temperatures the reverse is the case. From these experiments it would appear that there is a mutual antagonism between the lymph cells, or white blood corpuscles, on the one hand and the bacteria on the other, and that when the latter enter into the human body the former tend to destroy them.

Another set of experiments by Strauss* definitely prove what has long been a matter of doubt, that chemical irritants, such as turpentine, croton oil, etc., cannot produce suppuration without the presence of bacteria. In the light of these two sets of experiments (first, that without the presence of bacteria, pus is never formed, and, second that the pus cells, or white blood corpuscles, can destroy the bacteria), we are able to understand a little more clearly the meaning of some of the phenomena of septicæmia in the broadest sense of the word.

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*Revue de Chirurgie, No. 2; Bulletins de la Societe de Biologie, 1883, p. 651.

When the fresh surface of a wound is free from all septic bacteria, the wound heals quickly without suppuration or constitutional disturbance. When, on the other hand, septic bacteria are present on the surface of a wound, then the wound does not heal quickly, and suppuration and other symptoms of disease appear. Pus is poured out on the surfaces of the wound and prevents their uniting, and, although this formation delays the healing of the wound, yet it is of great value in the preservation of the well-being and the life of the individual, and is really curative in its nature. It is the only barrier which can be thrown out against the general infection of the body. The pus cells are the only elements which can destroy the bacteria. If these latter are few in number, they are quickly destroyed by the cells, little or no destruction or decomposition of tissue is produced, the flow of pus ceases, and the wound heals. If, on the other hand, the bacteria are in great abundance, they grow and multiply, and not only destroy many of the cells and the tissues, but in so doing produce decomposition and putrefaction, so that the pus and discharge from the wound has a very unpleasant odor. In such a case many of the bacteria pass beyond the barrier of cells poured out to destroy them, and, entering the lymph channels, reach the nearest lymphatic glands. Here the same process is repeated. There is a curative hyperplasia of the glands; that is, there is within the glands an increase in the number of lymph cells, which may destroy the bacteria, so that with the hyperplasia of the lymph glands the disease may terminate. In severer cases, however, the bacteria are so numerous or so virulent that they pass beyond the lymph glands and enter the general circulation. Then appears a remarkable symptom which is called fever, and which consists essentially in an increase in the heat of the body.

The fever which is produced by the entrance of bacteria into the blood causes much discomfort, and is at times dangerous to life, and yet in all probability it fulfills a most useful purpose.

The bacillus anthracis has its greatest activity and produces spores only between the temperatures of 64½° and 107½° F. Pasteur claims that anthrax cannot be inoculated in a fowl, because its normal temperature (106½°) is too high for the life and growth of the bacillus, but when the normal temperature of the fowl is lowered by immersing its legs in cold water, then it can be inoculated with the bacillus successfully. The bacillus tuberculosis can be cultivated only between the temperatures of 86° and 106° F. The spirilla of relapsing fever are rendered motionless in a very few hours by a temperature of 104° F., and it is probable that a temperature of 103° to 106° F. will weaken all the bacteria of disease so greatly that they are readily destroyed by the white corpuscles of the blood, while at the normal temperature of the body the bacteria might destroy the white corpuscles. It seems, therefore, altogether probable that the fever of septicæmia, as well as every other form of fever, is curative in its nature, in the same way that the suppuration and the hyperplasia of the lymph glands are curative.

In cases of septic poisoning the system reacts against the pathogenic bacteria by suppuration, hyperplasia of the lymphatic glands and fever. These are the three great symptoms of septic poisoning, and they are all curative in their nature. The treatment of any case, therefore, should be directed, not against the symptoms, but should be calculated to weaken the vitality of the bacteria and increase that of the white corpuscles.

In a manner quite similar to that described for septicæmia, almost all the other pathogenic bacteria, when introduced into the system, produce at first a local inflammation, then a hyperplasia of the neighboring lymphatic glands, and finally fever. Each of the symptoms causes discomfort, and each may become so excessive as to destroy the life of the patient; yet in their essential nature they are curative, and our therapeutic efforts should be directed, if possible, against the cause of the disease and towards maintaining the patient, while an attempt should be made to modify the symptoms of disease only when they are manifestly excessive.

In the light of our present knowledge, it seems to me that we can hardly attach too much importance to the following sentence with which, in the middle of the seventeenth century, Sydenham commenced his medical essays: "A disease, in my opinion, how prejudicial soever its causes may be to the body, is no more than a vigorous effort of nature to throw off the morbific matter, and thus recover the patient."

DISCUSSION.

Dr. R. D. **Clark** made an inquiry in regard to the disinfection of rags and the destruction of *spores* at 300° F.

Dr. G. S. **Munson**: I have listened with much pleasure to Dr. Hun's paper, but as my own knowledge of bacteria is confined mostly to diseases of the eye, I am impelled to say something relative to the subject as pertaining to this organ. The insufficient treatment of many destructive ulcerous processes of the cornea has been universally recognized, but more recently the influence of bacteria as the prime cause of this destruction has become known, and has led to the adoption of thorough antiseptic measures. Occasionally an ulcer will start no larger than the head of a pin, and will sweep gradually around the cornea, making a trough-like passage in its course, and, in spite of every thing that can be done, the eye will be destroyed. Such an ulcer, called *ulcus serpens*, is now conceded to be of undoubted mycotic origin, and the therapeutic indications are either to remove the bacteria or destroy them *in situ*. Antisepsis fulfills the former and the actual cautery the latter indication. Not long since a patient consulted me suffering with a recent severe ulceration of the right eye; otherwise he was enjoying excellent health. For years this eye had troubled him with a more or less constant discharge from the tear duct. In this discharge there undoubtedly were bacteria. On a slight injury to the cornea the bacteria found a fertile soil, and immediately the ulcer became angry and soon threatened the destruction of the eye. The treatment adopted was thoroughly antiseptic; that is, iodoform ointment, washing and syringing the eye and duct with boracic acid and chlorine water, with also atropine drops; no bandage was used. He immediately improved, and in two weeks left the hospital for home, his eye being entirely well. No relapse followed.

Gentlemen, the radical treatment in all destructive ulcerations of the eye due to bacteria, or, in fact, wherever in our bodies bacteria have gained a foothold to cause disease, is to render the *fertile* soil on which they thrive a *sterilized* soil.

Dr. T. F. C. **Van Allen** objected to the term "sterilization of tissue." The application of galvanic cautery acted by destruction of germs at the point applied, and by stimulating the tissue.

Dr. S. A. **Russell** spoke of fever as a sanitary process, and not to be combatted. If fever retards the multiplication of bacteria, then why give antipyretics ?

Dr. E. A. **Bartlett** questioned the utility of reduction of temperature by cold baths, if, as Dr. Hun had shown, by lowering the temperature of a chicken the multiplication of the bacillus anthracis was favored. The higher the fever, within a certain limit, the better for the patient, provided that the fever is caused by bacilli.

Dr. B. called attention to the marked difference between the bacilli of cholera Asiatica and those of cholera nostras, and yet authors, especially in England, have confounded the two diseases. As far as the bacilli themselves are concerned, a slight amount of acid will destroy them. The dejecta of cholera patients, of course containing the characteristic bacilli, have been swallowed with impunity, the bacilli being destroyed by the gastric juice. But it has been demonstrated that the *spores* will resist the acid of the stomach.

Dr. F. C. CURTIS: Most of us have probably thought more of the practical bearings of this subject than of bacteria in the abstract. One may infer from Dr. Hun's paper that he is a purist on the subject; and it is well, for that matter, in every department of scientific research to step out boldly upon all the deductions that follow every observed fact. As physicians, however, we are more likely to get at the subject from its clinical side. Looking at it from that side, there is much that is puzzling in respect to some diseases, if we are to start out with the assumption that each zymotic disease has its own germ, which never varies from its set form, as depicted in these illustrations which Dr. Hun has so kindly prepared, and each disease originating only in the presence of that germ; because there must have been a preexisting case, and it is impossible sometimes to find that preexisting case, and because out of the same conditions we find diverse diseases originating. This is looking at the question from the clinical point of view and quite independently of the fact, from the other side of the question, that diverse micro-organisms have been discovered for the same disease by different observers, or that the same micro-organism has been found as the cause of different diseases. There appears to me very much that is attractive and plausible in the theory of late brought forward, and first perhaps offered by Dr. Alfred L. Carroll, Secretary of the State Board of Health, and more recently elaborated by Naegeli and others, of a certain interchangeability of disease germs. This is, in effect, the development of what may be denominated the pathological or disease-causing germs from those varieties which exist everywhere and are benign in their ordinary function and activity—non-pathogenous. This variation in nature and form of these organisms is brought about, as alleged, by the nutriment and other environments of them. Without considering the question from the more scientific side of it, that of microscopic study and culture experiment, which I would leave to Dr. Hun, who is much more ready to pursue this than I am, except to ask him if he has any evidence favoring this developmental theory, I only wish to say that by means of it the sanitary observer is often relieved of an inability otherwise to reconcile facts as found with scientific germ theories. For instance, it is well known that some of the zymotics are not infrequently found occurring in a remote locality entirely apart from any apparently possible chance of origin from prior cases of the same disease. Typhoid fever, diphtheria, scarlet fever and perhaps cerebro-spinal fever are particularly thus met with. Then, too, we constantly find houses that have an insanitary history—and not necessarily affected by one disease. On such premises a case of typhoid fever will be found one season to have occurred, a year or two later diphtheria, perhaps also frequent diarrhœal or digestive disorders. On inspection very likely conditions of filth will be found, such as the leaching of a cesspool, or a broken drain, or a "made-soil" under the house containing organic waste, or some similar condition, by which the air of the house becomes polluted. I do not speak of city houses, where there is the common-to-all sewer connection, but detached country houses. Such cases are common, and often apart from all chance of direct infection, the *causæ morbi* being only those of filth and simple putrefaction. I know of nothing so satisfactory as to assume that the simple bacteria, under changing conditions of nutriment, or otherwise, have developed into those which produced these respective diseases. The environment of bacteria, then, as it affects their development, and as they, on the other hand, affect it, seems to call for study as much as the germs themselves.

Dr. Maurice J. Lewi spoke of a case of typhoid fever, a case of scarlet fever, and of a case of diphtheria, existing in one house, and the three different diseases were attributed to leakage from the sewer.

Dr. L. E. Blair spoke of the clinical importance of the detection of the bacillus tuberculosis.

Dr. S. R. Morrow asked if there is reason to believe that there is an undiscovered germ which is the cause of symptoms now attributed to the poison of sewer gas.

Dr. H. Hun: I cannot state the exact amount of heat required to destroy each particular kind of bacterium. In general, moist heat destroys them at a lower temperatnre than dry heat, and all bacteria are destroyed by boiling for an hour or more. Repeated boiling for a short time is more effective than continuous boiling for the same length of time. The adult bacteria are much more easily destroyed than the spores. It sometimes happens that some of the spores are splashed up on the sides of the vessel above the boiling liquid and dry there; in that case the spores being subjected to merely a dry heat of 212° F. are not destroyed.

I believe that each variety of the pathogenic bacteria produces one definite disease, and one only. When there is a leak in the drains of a house connected with the sewers of a large city, it seems to me that the pathogenic bacteria of almost every infectious disease can at any time enter that house and cause the corresponding disease, but if none of these bacteria are present in the sewer gas, then no definite infectious disease will result. The question as to what symptoms or disease simple sewer gas, uncontaminated by specific germs, will produce has interested me greatly. The cases of this sort which I have seen have exhibited great prostration, genera trembling, anorexia, nausea, vomiting and neuralgic pains. In a considerable number of such cases there has been transitory albuminuria, and in a few of the cases there have been all the symptoms of gall stones, although I never succeeded in finding gall stones in the fæces.

An Artesian Well.—The test of the artesian well has been going on again to-day from 8 o'clock this morning, and the six-inch pump has been pulling a volume of from 180 to 200 gallons per minute, and still there is no decrease in the yield. The bold stream which flows out now appears to be entirely satisfactory, with a temperature of about 60° F.—*Evening Capital, Atlanta, Ga.*, Jan. 30, 1886.

YELLOW FEVER INOCULATION.

[CORRESPONDENCE WITH DR. VANDER VEER.]

107 MARIETTA ST., ATLANTA, GA.,
November 25, 1885.

My Dear Doctor:

Your kind lines of the 25th inst. are duly appreciated. * * A presentation of the experience of Dr. Domingos Freire in preventative inoculation for yellow fever to the attention of Dr. Joseph Holt of New Orleans, is attracting considerable notice from the newspapers, and I have received a letter to-day from Dr. Irving A. Watson, secretary of the American Public Health Association, manifesting his interest in the matter. It is probable that some action will be taken at the forthcoming meeting of that body in Washington that may lead to the appointment of a commission by the United States government to investigate the facts, as his experience is corroborated by data from Mexico and Panama. I enclose an editorial from the evening *Atlanta Journal* of the 21st inst., which shows my connection with the matter:

> Dr. Gaston, of Atlanta, translated a letter received by him from Dr. Freire, of Rio Janeiro, in relation to the successful experiments made by the latter in the prevention of yellow fever through inoculation. This letter Dr. Gaston has forwarded to Dr. Holt, president of the Louisiana State Board of Health, and will by him be laid before the Public Health Association of America at its meeting in Washington next month. Dr. Gaston has labored with great zeal to bring this most valuable discovery to the attention of our government, and no doubt the action which the association will take upon it at Washington will result in the adoption of official steps by our government to fully investigate this discovery and make it useful in securing our own country against the dreadful ravages of yellow fever. Dr. Gaston deserves the thanks of our people for his patriotic zeal in this important matter.

* * * * * * * *

Very truly yours,
I. M. F. GASTON.

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107 MARIETTA ST., ATLANTA, GA.,
January 30, 1886.

Dear Doctor Vander Veer:

Yours of the 22d inst. came duly to hand. * * * * * I would again draw your attention to the subject of yellow fever inoculation, as noticed in the numbers of *Gaillard's Journal* for December, 1885, and January, 1886, by which you will see that I have taken an active part in urging forward this prophylactic measure. Another letter has just reached me from Dr. Freire, of which I enclose you a translation, written by one of my daughters, who was born in Brazil during our sojourn in that empire: * * Very truly yours,

I. M. F. Gaston.

The following is the translation referred to by Dr. Gaston:

Rio de Janeiro, *December* 27, 1885.

Dear Doctor Gaston:

It is with great satisfaction that I reply to your kind letter just received, to which I hasten my answer.

The lively interest which you have shown in presenting my discovery to the public is so gratifying to me that I cannot find words which express adequately my deep sense of obligation. I have entire confidence that, under the protection of your important name, my discovery of the prevention of yellow fever by means of inoculation with attenuated cultures will be shortly extended throughout the grand American Republic heretofore devasted by that scourge.

The day on which this happens will be that of the richest reward for the great labors and hard sacrifices which I have undertaken in the fiulfillment of this humane problem, and your name will be found linked with this work of Christian charity and progressive civilization.

I have read with all attention your correspondence, as likewise the authoritative opinion of Dr. Holt, to whom I write at present date. His ideas will most assuredly be duly weighed by the American Association of Public Health, and I judge that the commission of medical men, of which you spoke, will come very soon to give us the distinguished honor of verifying the results of our prophylactic measure, which, up to this time, has been attended with such notable success that not one of the six thousand who were inoculated during the present year has died of yellow fever, while nearly five hundred who were not inoculated have sunk into the grave as victims of that disease.

In a short time I will send you a pamphlet, in which I give minute information upon the inoculations practiced, by which all may properly estimate the confidence which ought to be deposited in the preventive method that I propose.

I am, dear sir, with profound respect, your obedient servant,

Domingos Freire, No. 29 Cattete street.

[At the meeting, in December last, of the American Public Health Association, Dr. Joseph Holt, president of the State Board of Health of Louisiana, offered preamble and resolutions showing that there was an accumulation of evidence that the power of protecting the unacclimated against yellow fever had been discovered, and petitioning congress to appoint a commission of three persons, and to appropriate $30,000, to investigate the means employed, and to report.]

ALBANY MEDICAL ANNALS:

A Journal of the Medical Society of the County of Albany.

EDITORIAL COMMITTEE:

F. C. CURTIS, M.D., A. VANDER VEER, M.D., LORENZO HALE, M.D.,
JNO. BEN. STONEHOUSE, M.D., WILLIS G. TUCKER, M.D.

Vol. VII. MARCH, 1886. No. 3.

MEDICAL NEWS.

ALUMNI REUNION AND COMMENCEMENT, ALBANY MEDICAL COLLEGE.

The Alumni exercises occupied two days — Tuesday and Wednesday, March 2 and 3 — instead of a single "Alumni Day," as in former years. Tuesday morning was spent in personal salutation in the college library. In the afternoon a preliminary meeting was held in Alumni Hall, and routine business was transacted, including reception of reports from various officers and committees and the reading of the class history of the class of '56, by Dr. R. H. Sabin ('56). Impromptu speeches were made by Dr. Silas P. Wright ('62), of Wilmington, N. C.; Dr. C. S. Hazeltine ('66), Grand Rapids, Mich.; Dr. Isaac C. Edson ('67), Windsor, N. Y., Member of Assembly from Broome county; Dr. Solon Briggs ('69), of Newark, N. J., and Dr. Charles McCulloch ('77), of Central Bridge, N. Y.

At 8 P. M. the first Alumni Lecure on "The Physician in his Relations to Private and Public Hygiene" was delivered by Prof. S. O. Vander Poel, M.D., in the chapel of the High School.

The thirteenth annual meeting of the Association of the Alumni of the Albany Medical College was held in Alumni Hall on Wednesday morning, March 3, 1886. The faculty address of welcome was delivered by Prof. William Hailes, Jr., and the President's address, by Dr. H. Bendell ('62). Various business matters were attended to, including the election of the following officers for the ensuing year: President, Dr. Walter M. Fleming ('62), of New York; vice-presidents, Dr. D. V. O'Leary ('66), Albany, N. Y., Dr. Mahlon Felter ('59), Troy, N. Y., Dr. Silas P. Wright ('62), Wilmington, N. C., Dr. G. P. K. Pomeroy ('78), Stuyvesant, N. Y., Dr. Solon Briggs ('69), Newark, N. J.; recording secretary, Dr. Willis G. Tucker ('70), Albany, N. Y.; corresponding secretary, Dr. E. A. Bartlett ('79), Albany, N. Y.; treasurer, Dr. T. W. Nellis ('81), Albany, N. Y.; historian, Dr. Jno. Ben. Stonehouse ('71), Albany, N. Y.; executive committee, Dr. H. Bendell ('62), Albany, N. Y., Dr. A. B. Huested ('63), Albany, N. Y., Dr. D. C. Case ('70), Slingerlands, N. Y., Dr. G. L. Ullman ('71), Albany, N. Y.

Impromptu addresses were made by Dr. H. D. Didama ('46), Syracuse, N. Y.; by Dr. W. M. Fleming ('62), New York city; by Dr. W. H. Bailey ('53), Albany, N. Y.; by Dr. G. L. Van Allen ('74), Schenectady, N. Y.

THE FIFTY-FOURTH COMMENCEMENT

of the Albany Medical College (Medical Department, Union University) was held in the Leland Opera House, Wednesday afternoon at 3 o'clock. The exercises were opened with prayer by Rev. E. F. See. Francis T. McIntosh ('86) read the essay; subject, "Reserve Power." Dr. S. H. Freeman ('46) read the curator's report. The degrees were conferred by the President of the College, Hon. Amasa J. Parker, LL.D., upon the members of the graduating class, as follows: George H. Baker, Troy, N. Y.; Joseph E. Baynes, Troy, N. Y.; Adam J. Blessing, Albany N. Y.; William P. Brierly, Hudson, N. Y.; Alfred L. Browne, Cohoes, N. Y.; William B. Campbell, Davenport, N. Y.; Arthur S. Capron, Albany, N. Y.; James Carr, Fulton, N. Y.; James A. Clyne, Cohoes, N. Y.; Eugene H. Coons, Schultzville, N. Y.; John A. Cutter, B.Sc., New York city; William H. De La Mater, Duanesburgh, N. Y.; Noah L. Eastman, Denver, Colo.; Elmer E. Finch, Schodack Center, N. Y.; John F. Fitzgerald, Fort Edward, N. Y.; Alfred K. Freiot, Troy, N. Y.; Hermon C. Gordinier, Troy, N. Y.; Alfred H. Hoadley, Sheffield, Mass.; James A. Holley, Walton, N. Y.; Dayton L. Kathan, Ballston, N. Y.; Arie V. Klock, Palatine Bridge, N. Y.; William H. Lemrow, Troy, N. Y.; Harrie M.

Lincoln, Greenfield Center, N. Y.; Charles B. Mallery, Chestertown, N. Y.; Richard H. McCarty, Schuylerville, N. Y.; Francis T. McIntosh, Troy, N. Y.; William McNaughton, Cohoes, N. Y.; Joseph S. Parent, Charlton, N. Y.; Ransom J. Perry, Whitney's Point, N. Y.; James H. Reilly, Albany, N. Y.; John A. Robson, Hall's Corners, N. Y.; J. Wesley Sheffield, Lasselville, N. Y.; Wellington G. Steele, Liberty, N. Y.; Arthur D. Stowitts, Rural Grove, N. Y.; Edward H. Taft, Albany, N. Y.; Adrian P. Van Deinse, Albany, N. Y.; Charles T. Walton, Port Henry, N. Y.; Stephen H. Webster, Troy, N. Y.; William M. White, Amsterdam, N. Y.; Richard A. Woodruff, Pine Bush, N. Y.

Mr. Lawson Tait, F.R.C.S., of Birmingham, England, received the honorary degree of Doctor of Medicine.

The appointments of Dr. Henry Hun as professor of diseases of the nervous system and Dr. S. R. Morrow as adjunct professor of surgery were announced from the stage.

Hon. St. Clair McKelway, of Brooklyn delivered the commencement address, and William M. White, of the graduating class, gave the valedictory. The music, by Holding's orchestra, was choice and the selections finely rendered.

The following regular prizes, competitive amongst the students, were awarded: The best report of surgical clinics (the prize a pocket instrument case, offered by Dr. Vander Veer), awarded to Dr. Charles H. Moore; second prize offered by the late Dr. N. L. Snow (a pocket instrument case), awarded to Dr. W. B. Campbell; the best report of the eye and ear clinics (a Loring ophthalmoscope, offered by Dr. Merrill), awarded to Dr. A. H. Hoadley; the student passing the best senior examination (a valuable surgical case), the gift of Dr. T. W. Nellis ('81), awarded to Dr. A. H. Hoadley. The appointments on the house staff of the Albany Hospital were: First to Dr. D. L. Kathan, second to Dr. A. H. Hoadley. The appointments on the house staff of St. Peter's Hospital were: First to Dr. John F. Fitzgerald, second to Dr. R. A. Woodruff.

Shortly after 8 o'clock Dr. S. O. Vander Poel, of New York, gave the second Alumni Lecture on "The Physician in his Relations to Private and Public Hygiene." The lecture, which was in the High School chapel, was highly commended, more ladies being present than on the preceding evening.

THE ANNUAL BANQUET.

When the lecture of Dr. Vander Poel was over, the members of the association, graduates and students found their way to the Delavan House. At 10 o'clock about 150 sat down to a sumptuous banquet, which was fully enjoyed. President Bendell acted as toast-master.

President-elect Fleming responded to the toast "Our Alumni Association."

"The Faculty of the Albany Medical College" was responded to by Dr. S. Oakey Vander Poel. He said in substance:

One fact is apparent to all. That is, that there are two able men in the faculty—Dr. Vander Veer and Dr. Hailes. He did not see why a mummified emeritus should be selected in preference. But they have their hobbies, and have gone daft. Prof. Vander Veer has been interesting himself in the water question, and has succeeded in finding it in driven wells. Not so much could be said of Prof. Hailes in his investigations as to bacteria. The fault of too many doctors lies with the practitioners. The colleges are powerless to reject a man who presents himself. Some young men, with scarcely any education, are pushed forward by physicians. Redress is not to be found in legislative action. The weakest of the practitioners are constantly crying about legislative protection. The calling is too high and too ennobling for regulation by legislative enactment. A man without the proper education should not apply for admittance to the college. The physicians should establish a standard for admission. The proper qualification should be followed by a whole course of study, exercises and recitation. Physicians do not, as a general thing, have the time to spend with the student. Country physicians should not encourage young men to study medicine, but rather advise them to attend some center of learning. As communities grow older they demand a higher culture. Let the action spring from you, and not be reflected to you by legal enactment.

The Rev. Charles Wood, responding to "The Clergy," said:

I congratulate the gentlemen of the graduating class on having successfully completed their preparatory course of study. You are now supposed to be fully equipped for all the duties of your profession, but the time is coming when the patient public will demand of its would-be medical advisers not only a diploma such as you received to day, but a certificate as well from rabbi, priest or pastor—a marriage certificate. The time was when our two professions were one, when the practitioner and the preacher, the medical man and the minister, were all under the same hat. There are ideal social conditions now in Africa and Asia, such as Rousseau wished to introduce into Europe, where the man that shaves you bleeds you (as he sometimes does here), and then lights a fire under you to exorcise the demons of disease, and concludes by performing the funeral rites over his patient, which there seem to follow even more closely than here the visit of the medical man. But in Europe the medical man lost some of his religion, or the religious man lost some of his medicine, and the two professions are now distinct—as distinct as two notes in a musical chord, but their distinctness is neither antagonistic nor discordant.

I have two sons, and their mother says that the younger, a gentle, dove-eyed lad, who is very quiet at day and very sleepy at night, shall be a minister; but the elder, who has fire in his eye, is in mischief by day, and sleeps only as a personal favor to his parents at night, shall be a doctor. May the two professions, like Paul, the minister, and Luke, the beloved physician, go hand in hand doing an equally good work for man and God.

Of the three learned professions, there is no need to tell you, yours is the most popular. Let my friend on the left be taken ill to-night and be told in the morning that he had better send for a minister, his face will blanch, and he will say, "Is it, then, so bad as that?" Or let him be advised to send for a lawyer, and he will cry, "Is there absolutely no hope?" But let it be suggested that he should send for a doctor, and the clouds will lift, and he will jubilantly obey. Yours is not only a popular profession, but it is a high and holy calling. It is not a mere money-making business, as some of you will perhaps soon enough find out; neither should you wish it to be such primarily, any more than the minister should have so ignoble a wish for his profession. The two have the same purpose—the relief of distress and suffering, the lifting of burdens from bowed shoulders and hearts We ought to be the good Samaritans to all the bruised and hurt on the Jericho road, pouring oil and wine upon their wounds (let me, in parenthesis, commend the use of wine only as an external application), and having the privilege often, as the good Samaritan had, of giving our time and services, and then, it may be, of paying the bills of our beneficiaries.

Gentlemen, we are all ministers, but you outrank me. I am not even a canon or a dean, and you are popes. We say to our congregations, "Come to church, rain or shine." You say, "Stay in to-day." and they do. You can make Lent at any season of the year by a word. You are the autocrats of the breakfast, dinner and tea table. You sway the generations that now are. You mold the destiny of the generations yet unborn. There is no appeal from your decisions. You can sentence the strongest man to death or to a wretched life of drivelling idiocy. Can you think of such power and responsibility without bowing your heads and falling upon your knees? You are doubtless saying, as you mentally diagnose this response to "The Clergy," that it is suffering from a decided attack of sermon; but when I call up a doctor I expect to get medicine, and when you call up a minister you must expect to get at least what George Eliot would call a "pillulous" sermon.

Gentlemen of the graduating class, there are two things a young doctor is apt to think he can't afford; the first is a carriage and the second is a conscience. He must walk, or crawl, till he gets into the good graces of the public, but the man who begins crawling will end crawling. You are in the apostolic succession of martyrs who died, not for faith, but for knowledge. The roll of honor is a long one of the worthies of your profession who have cheerfully laid down their lives for science. Should you not be willing to do and suffer for conscience? I wish you all good things, all prosperity, all success, but nothing do I wish more heartily than that you may feel within you

> "A peace above all earthly dignities,
> A still and quiet conscience."

OTHER SPEECHES OF THE EVENING.

"The Orator of the Day." This is the toast the Hon. St. Clair McKelway wrestled with, beginning with "Physicians, guests and specialists." This was the eighth annual alumni dinner he had attended. Five years ago he addressed the then superior class of any of its predecessors. That class was never surpassed until the present one graduated. The mention of Dr. Lewis Balch's name as Secretary of the State Board of Health brought out long-continued applause.

Mr. John A. Sleicher, editor of *The Journal*, in responding for the press, paid a high tribute to the heroic doctors who sacrificed their lives at the penitentiary while acting as nurses to convicts in the typhus fever wards.

Prof. Didama, of Syracuse, responded to "The ex-Presidents," in the absence of Dr. Van Etten. He did it well, his remarks being in the humorous vein which characterizes all the doctor's public addresses.

Dr. Maurice J. Lewi responded to "Our Alma Mater," and Dr. William Hailes, Jr., in the absence of Maj. James Haggerty, spoke in a witty manner for the lawyers.

Dr. G. H. Baker responded for the class of 1886.

Retiring President Bendell may well feel proud of his administration.

ALBANY COLLEGE OF PHARMACY.

The fifth commencement exercises of the Albany College of Pharmacy occurred at Agricultural Hall, corner of State and Lodge streets, Monday evening, March 1. Professor E. P. Waterbury, LL.D., of the Board of Trustees, presided, and an introductory address was delivered by Prof. Willis G. Tucker, M.D., President of the Faculty.

Prof. J. E. Bradley, of the High School, delivered the address to the graduating class. He happily introduced his remarks with Ludlow's Cannabis Indica story, and then branched out with well-timed remarks upon the relation of science to industrial prosperity. In the list of those agencies that elevate society, religion and science were named as necessary.

During the winter forty-two students have been in attendance. Instruction is given by lecture, experiments and laboratory work, upon chemistry, pharmacy, materia medica and botany. Students are divided into junior and senior classes, with separate courses for each class. Attendance of two years, covering the junior and senior instruction, and a practical experience of four years in a pharmacy, are necessary to graduation with the degree of Ph.G.

The graduates of this year are: Harry J. Barringer, Jr., Hudson; J. Miles Cummings, Fabius; Harry B. Duryee, Schenectady; Charles N. Gilbert, Albany; Henry A. Kerste, Schenectady; Oscar M. Myers, Rochester; Herman Pareira, Albany; Charles M. Rogers, Pittsfield, Mass.; Charles F. Stewart, Utica; Harry M. Sweet, Cohoes.

AWARD OF PRIZES.

Three prizes were awarded—One of twenty-five dollars, sustained by Archibald McClure, Esq., was awarded to the senior student passing the best general examination; a faculty prize of twenty dollars was awarded the senior student passing the second best general examination, and a prize of twenty-five dollars, the gift of Charles Newman, was awarded to the junior student passing the best general examination. These were captured in their order by Henry J. Barringer, Jr., of Hudson, Charles N. Gilbert, of Albany, and Edward J. Simpson, of Buffalo. Honorable mention was made of Messrs. Harry M. Sweet, Oscar M. Myers and J. M. Cummings, of the seniors, and Messrs. Barton and Sutliff, of the juniors. Harry M. Sweet, of Cohoes, delivered a well-received valedictory. Holding's orchestra furnished excellent music. Many of the old graduates were present, and evinced much interest in the success of the college and of the exercises, after which the annual dinner was met and conquered at the Delavan.

ELECTION OF ALUMNI OFFICERS.

At the annual meeting of the alumni of the Albany College of Pharmacy the following officers were elected for the ensuing year: President, F. J. Smith ('83), Albany; first vice-president, John Hurley ('85), Little Falls; second vice-president, H. M. Sweet ('86), Cohoes; secretary, Charles N. Gilbert ('86), Albany;

treasurer, James W. Stafford ('85), White Plains; historian, De Baun Van Aken ('84), Albany; executive committee, Louis Sautter, Jr., ('83), Albany; George Boucher ('83), Albany; H. Pareira ('86), Albany.

NATIONAL SANITARY CONVENTION.—A Sanitary Convention will be held in Philadelphia, under the auspices of the Pennsylvania State Board of Health, May 12–14, 1886. Among the subjects to be discussed are: "School Buildings and Grounds," "The Water Supply and Drainage of Towns and Cities," "Tests for Impurities in Water," "Germicides," "The Hygiene of Old Age," "Cholera," etc. Joseph F. Edwards, M.D., a member of the Board and editor of the *Medical and Surgical Reporter*, is chairman of the committee of arrangements.

PERSONALS.

—Lewis Balch, M.D., Ph.D., Professor of Anatomy in the Albany Medical College, is elected Secretary of the State Board of Health of New York by that body, the service to begin April 1.

—Dr. W. H. Murray ('69) has held the position of physician to the Albany County Penitentiary for several years. In 1885, shortly before the epidemic of typhus fever, he was succeeded by Dr. Joseph W. Riley ('82), who died of typhus fever, January 15, 1886. After Dr. Riley's death, Dr. Murray was reinstated in his office.

—Dr. Jno. Ben. Stonehouse ('71), at a recent meeting of the Penitentiary Commissioners, received the appointment of penitentiary physician, his term to begin March 15, 1886.

—Dr. Harrie M. Lincoln ('86) is located at Conklingville, Saratoga county, N. Y.

—Dr. Charles B. Mallery ('86) is located at Glens Falls, Warren county, N. Y., associated with Dr. Little.

—Dr. W. G. Steele ('86) has opened his office in Liberty, Sullivan county, N. Y.

—Dr. E. C. Kennedy ('81), Warwick, Orange county, N. Y.

—Dr. E. E. Brown ('79), 91½ Hudson avenue, Albany.

—Dr. M. McHarg ('85), 62 Hudson avenue, Albany.

—Dr. L. E. Blair (class of '81) was married March 11, 1886, to Miss Lillie Mann, daughter of Aaron Mann, Esq., of the firm of Mann, Waldman & Co., Albany. His residence, after May 1, will be 46 Eagle street, Albany.

—DIED.—In West Troy, Monday, March 8, 1886, Lizzie M. Shoemaker, wife of Dr. A. T. Van Vranken ('73), in the 29th year of her age.

—Dr. L. T. Vedder (A. M. C., '81), not Dr. A. T. Veeder (A. M. C. '63), as announced on page 27, was elected secretary of the Schenectady County Medical Society, on January 12.

—Dr. James W. King (class of '84), for the past six months the house physician and surgeon in the Albany Hospital, left Albany March 23, to locate in Pittsburg, Pa.

—Dr. E. E. Larkin (class of '85) assumes the rank of resident physician and surgeon in the Albany Hospital by the expiration of the term of Dr. King, his predecessor.

—Dr. John H. Van Rensselaer (class of '85) ranks as assistant house physician and surgeon in the Albany Hospital.

—Dr. D. L. Kathan (class of '86) entered upon his duties as junior assistant house physician and surgeon in the Albany Hospital March 18, 1886.

—Dr. Frank A. Rockwith, the proposer of a small-pox remedy, writes:

1012 SOUTH WASHINGTON AVE.,
EAST SAGINAW, MICH.,
March 15, 1886.

Editors Albany Medical Annals:

Permit me to acknowledge the favor of sample copy of your ANNALS for this year. In it you do me the honor of quoting my humble contribution to the *New York Medical Times* on "Sulpho-cyan-allyl in Small-pox." You will pardon my vanity if I ask of you the further favor to correct the spelling of my name, which, resembling one rather more numerously represented in the practice of medicine in this country, may give credit where it does not belong. One likes to keep what is his own, be this ever so small or unimportant.

I have perused carefully every line of your journal, and must confess that I have been so exceedingly well pleased as to desire a further enjoyment of its productions, and which are offered to us at so modest and, I feel justified in saying, unjustly low price of subscription. I enclose subscription price of one dollar. Please forward me No. 1 of this volume, No. 2 being at hand. I am, gentlemen,

Very respectfully yours,
FRANK A. ROCKWITH.

OBITUARY.

SAMUEL OAKLEY VANDER POEL, M.D., LL.D.

Dr. S. Oakley Vander Poel, of New York city, died in the Arlington Hotel, Washington, D. C., at 6:30 o'clock, Friday morning, March 12, 1886, at the age of 62. The startling intelligence was received in Albany with universal expressions of sorrow. Only the week before his death he had visited this city, and delivered two lectures before the Association of the Alumni of the Albany Medical College, and no one imagined that this was his last public work.

He had arrived at Washington on the previous Friday night, to join his wife, who was visiting friends there, and to go further south with her. A rest in the national capital was imperative, because of the aggravation, by railroad travel, of an affection of the bladder, which had been first brought on by taking cold while *en route* for Copenhagen in 1884, and which had been neglected and assumed serious proportions at the very beginning in consequence of a deficiency in the surgical armamentarium of an ocean steamer. His complaint was not of late considered dangerous. On the morning of the Tuesday before his death he was down stairs chatting with his friends, but soon retired to his rooms, and within two hours Dr. Garrett was called to attend him at the hotel. His pain increased, despite the most powerful anæsthetics, and delirium set in. Drs. Johnson and Lincoln were also summoned. His wife and eldest son were at his bedside on Friday when he died. His two other sons arrived soon after. The body was removed that afternoon to the family home, No. 36 West Thirty-ninth street, New York, and was brought to the Rural Cemetery, Albany, on Tuesday afternoon.

The faculty of the Albany Medical College met in the college library, on Saturday, March 13, to take action on the death of Dr. Vander Poel. There were present: Drs. Vander Veer, Ward, Hailes, Townsend, Henry Hun, Boyd, Morrow and Tucker.

The meeting was called to order by Dr. Tucker, and, on motion of Dr. Townsend, Dr. Vander Veer took the chair and read the following tribute, which was adopted:

Scarcely a week has elapsed since it was our pride and pleasure to grasp the hand of him who has so suddenly been taken from us by the stern hand of death. Dr. S. Oakley Vander Poel had endeared himself to us all in many ways. He was firm in his friendship towards the city of his adoption, and to us as a faculty he was a true associate. Seldom has there joined the leading corps of this college a member who entered so earnestly into his work as he whom we now mourn as dead to us here on earth. He was faithful at all times in his labors while an active professor, and seldom, if ever, allowed a lecture hour to go by without its being filled. He was loyal to the college in every way, always working for its interests, and either by speech or act endeavoring to advance its welfare and usefulness. By intimate association we learned to know him as a man of great strength of character, of much learning, of broad views in medicine, an earnest pathologist, a good diagnostician, a successful practitioner in his chosen profession. He won and retained the love and admiration of the students who comprised the various classes that it was his pleasure to teach, and there are many, very many, of our graduates who will dry the moistened eye as they hear of his death, and in sorrow speak of his many noble virtues. His life was never an idle one; he gave much time and thought to his clinical instruction, and in all ways sought to advance and formulate the welfare of students and institutions with which he was associated. In truth it may be said he was a most worthy and successful teacher of medicine, and, while in grief, we obey the will of our Maker who has taken him from us while in the strength of mature manhood, yet to his bereaved family we would extend our sincere sympathy in their loss, and remind them that in the study of the useful life he spent here on earth they will find great consolation; that for comfort to their wounded hearts they must look to that same Saviour in whom he trusted.

Resolved, That the foregoing be spread upon our book of minutes, and that the registrar be directed to send a copy of our tribute, to-day, to the afflicted widow and family and cause it to be published in the daily papers.

Resolved, That so far as possible we attend the funeral in a body.

The main entrance of the college was ordered draped, and it was voted that the faculty should meet at the depot in Albany on the arrival of the body in this city.

The funeral, on Monday afternoon at the New York residence was largely attended. The Rev. Edward B. Coe conducted a simple service, giving a short address on the life and character of the deceased. A single musical selection was given by the Mendelsshon Club quartette. The pall bearers were: Alfred Van Santvoord, William H. Halstead, Gen. Thomas Hillhouse, Henry Buell, ex-Gov. John T. Hoffman, Dr. Alfred Loomis, Dr. C. R. Agnew, Dr. John C. Dalton, Dr. D. B. St. John Roosa, Dr. Fordyce Barker, Dr. Chandler, Dr. Albert Vander Veer and Samuel Sloan.

The remains reached this city from New York, Tuesday afternoon on the 12:55 train, accompanied by one of his sons, Dr.

McCurdy (his associate) and Dr. Albert Vander Veer. The family of the deceased arrived on the fast train, which reached here at 1:05 o'clock, Mrs. Vander Poel being accompanied by two of her sons and other relatives. There was a large gathering of Albanians in the depot to attend the transfer of the remains to the rural cemetery. Among those noticed were: Bishop Doane, Mayor A. Bleecker Banks, Gen. Frederick Townsend, Gen. R. H. King, ex-Senator Abraham Lansing, Paul F. Cooper, Maurice E. Viele, Charles Van Benthuysen, Jacob H. Ten Eyck, William Wendell, Isaac Vander Poel, James D. Wasson, Joseph Y. Paige, Leonard Paige, Peyton F. Miller, A. Douw Lansing, Dr. S. B. Ward, Dr. S. H. Freeman, Dr. J. M. Bigelow, Dr. William H. Craig, Dr. Henry Hun, Dr. William Hailes, Jr., Dr. Franklin Townsend, William Lansing, J. W. Van Valkenburgh, and many others.

On the remains being transferred to the hearse in waiting, the family and friends took carriages and proceeded to the Rural Cemetery, where, after prayers by the Rev. J. Wilbur Chapman, pastor of the First Reformed Church, in the chapel, the remains were deposited in the family vault.

Dr. S. O. Vander Poel was born February 22, 1824, in Kinderhook. His father, Dr. John Vander Poel, was a physician of considerable local celebrity. His boyhood and youth were passed in his native place, and much out-door life contributed to the development of a vigorous and robust constitution. At an early age he completed his preparatory training in the Kinderhook academy, and entered upon his collegiate course in the University of the City of New York, of which Theodore Frelinghuysen was then chancellor. He received his degree of A.B. in 1842, and his Master's degree in 1845, in which year he graduated as M.D. from Jefferson Medical College, after attending a course of lectures in the Albany Medical College in 1843, and a part of the following year. He received the honorary degree of M.D. in 1849 from the Albany Medical College. For two years he was associated with his father; but, regarding these labors as only preparatory to the professional career which he had marked out, in the fall of 1847 he went to Paris to resume his studies there. It was a troublous time, the violent revolution of February, 1848, ending in the abdication of Louis Phillipe and the proclamation of the second republic.

Dr. Vander Poel, finding these tumultuous scenes unpropitious to study, traveled through the south of France and Italy, witnessing at Lyons, Marseilles, Naples, Rome, Florence and Milan, the various acts of the revolutionary drama then exciting all Europe. Immediately after the bloody days of June, he returned to the French capital, and remained for some time.

In the spring of 1850 Dr. Vander Poel came to Albany and settled, speedily acquiring a practice which continued flattering and progressive. He was soon after married to Gertrude, daughter, of Dr. Peter Wendell, Chancellor of the Regents of the University.

In 1857 Gov. King appointed him Surgeon-General of the State, and three years later he was chosen president of the Medical Society of the County of Albany, being also re-elected the following year. In 1861 he was again invited to the office of Surgeon-General by Gov. Morgan. It was not a position of empty honor. The beginning of the war imposed duties and responsibilities far more arduous, delicate and important than had ever before developed upon that or any similar position in the country. It was necessary to keep filled with capable officers between six and seven hundred positions upon the medical staff, and at one time the Surgeon-General was called upon to make 500 appointments in the space of six weeks. His successful administration elicited the official approval of both the Secretary of War and the Governor of the state.

In 1867, Dr. Vander Poel was appointed to the chair of General Pathology and Clinical Medicine in the Albany Medical College, which he held for three years. About the same time he was appointed a manager of the State Lunatic Asylum at Utica. In February, 1870, he was elected president of the Medical Society of the State of New York, the highest recognition in the power of his professional brethren to bestow.

In 1872 Dr. Vander Poel was called by Gov. Hoffman to take charge of the quarantine department of the port of New York as health officer, one of the highest medical offices in the world. His discharge of its varied duties was highly commended. His deputy was the late Dr. Jacob S. Mosher, whose sudden death is still lamented by this community.

The chair of Pathology, Practice, and Clinical Medicine in the Albany Medical College was occupied by him in 1876, and he was made emeritus professor of the same branches in that institution on his removal to New York in 1881. In 1883 he was made president of the Medical Society of the County of New York, and in the same year was elected to a professorship of Public Hygiene in the medical department of the University of New York, from which institution he had received the degree of Doctor of Laws in 1877. He was for a long time a consulting physician in the Albany Hospital and in St. Peter's Hospital in this city, and he was a member of the International Medical Congress at Copenhagen, Denmark, 1880–84.

Dr. Vander Poel was a man of culture and public spirit, and his loss is mourned by hosts of personal friends.

A writer (J. R. D.) in the *Christian Intelligencer* gives a very appreciative sketch of the doctor, in which he says: "The aristocracy of intellect, of heart and of blood all found in him a true type. This very union of traits made him an unassuming man. Not only so, it led to that fine courtesy shown to every one, however circumstanced. To see the life of Dr. Vander Poel was to understand the meaning of *noblesse oblige*."

DR. E. M. WADE.

Dr. Ezekiel Mulford Wade died at his home in Watervliet, March 8, 1886. He was born in Niskayuna, Schenectady county, November 14, 1814. His grandfather, James Wade, was a revolutionary patriot, and took part in the Battle of Bunker Hill. His father, James Wade, M.D., was a celebrated practitioner, his practice extending into Albany, Schenectady, and Saratoga counties. His reputation was established in 1813 during a notable epidemic of so-called typhoid pneumonia, in which all other physicians in his locality lost nearly every patient within a short time after bleeding at beginning of treatment, and in which he saved nearly every case of his by avoiding bleeding and by the use of supporting measures.

Dr. James Wade had five brothers, all of whom lived in Ohio —Samuel Sidney Wade, Theodore L. Wade (whose daughter, Ellen M. Wade, was the wife of the late ex-Vice-President Schuyler Colfax), Charles H. Wade (whose son, Decius S. Wade, has been four times appointed and is still serving as Chief Justice of the United States Supreme Court, Montana territory), Hon. Benjamin Franklin Wade, for eighteen years United States Senator from 1850 to 1869, and Edward Wade, member of Congress from nineteenth district (Cleveland, O.) from 1852 to 1860.

Dr. James Wade married Miss Sallie Mulford, of Watervliet, and had three sons—Dr. E. M. Wade, the subject of this sketch; James Wade, Jr., Esq., counselor at law, Cleveland, O., and Edward Wade, Esq., a highly respected lawyer of Albany, N. Y.

Dr. E. M. Wade married Miss Sarah A. Saunders, of Burnt Hills, daughter of Dr. Henry Saunders, June 26, 1838, by whom he had all his children, namely: Henry S. Wade, now living in Watervliet; Sarah M. Wade, who married Mr. Visscher Lansing, of Lishas Kill, and Miss Anna S. Wade, now living in Watervliet.

Dr. E. M. Wade married his second wife, Miss Phœbe Birch, of Saratoga county, February 23, 1853, who died September 20, 1881.

He received the degree of Doctor of Medicine from the Vermont Academy of Medicine, November 8, 1837, and became a member of the Medical Society of the County of Albany in 1865.

He was engaged in the active practice of his profession until about two weeks before his death, which resulted from pneumonia, in his 72d year. L. H.

[See action of County Society on page 96.]

MEDICAL SOCIETY OF THE COUNTY OF ALBANY.

Abstract of the Minutes of the Stated Meetings of February 10 and March 10, 1886.

A regular meeting was held at Alumni Hall, February 10, 1886.

Present: President B. U. Steenberg and Drs. Ball, Bartlett, Bendell, Blair, Britton, E. E. Brown, Clark, Classen, Cook, Curtis, DuBois, Dwyer, Hennessy, Houston, H. Hun, Keegan, M. J. Lewi, Morrow, Munson, Murray, W. J. Nellis, Russell, B. U. Steenberg, Stillman, Stonehouse, Thompson, Van Allen, and many students.

On motion of Dr. Morrow, reading of minutes was waived.

The committee appointed to draft resolutions on Dr. Riley's death were unable to report, owing to the absence of the chairman, Dr. Van Vranken.

A communication from Mayor Banks regarding the bi-centennial celebration was received and ordered placed on file.

Dr. Hun then read a paper on, and gave a demonstration of, "The Bacteria of Disease."

Discussed by Drs. R. D. Clark, George S. Munson, T. F. C. Van Allen, S. A. Russell, E. A. Bartlett, F. C. Curtis, M. J. Lewi, S. R. Morrow and L. E. Blair.

Dr. M. J. Lewi moved that a special committee on legislation be appointed with power to act for the Society in the matter of a State Board of Examiners. Carried.

President Steenberg appointed M. J. Lewi, F. C. Curtis, S. B, Ward, J. W. Moore and W. G. Tucker as such committee.

Adjourned.

W. J. NELLIS, *Secretary.*

A stated meeting of the Medical Society of the County of Albany was held in Alumni Hall, Albany Medical College, on Wednesday evening, March 10, 1886.

Present: President B. U. Steenberg and Drs. T. P. Bailey. Ball, Clark, Classen, Cook, Cooper, L. Hale, H. Hun, F. D. Morrill, Morrow, Munson, Russell, Scattergood, Townsend, Van Allen, Vander Veer, Ward; also Dr. J. W. M. Shattuck and a number of students.

In the absence of Secretary Nellis, the President called Dr. Hale to act as secretary *pro tem.*

President STEENBERG announced the death of Dr. E. M. Wade.

Dr. LORENZO HALE said that in an interview with a brother of Dr. Wade he had learned the following biographical facts. [See biographical sketch on page 94.]

Dr. A. VANDER VEER said: I do not think that Dr. Wade has met with us in our society meetings very often during the past ten or twelve years; but when he has been present he has been well prepared in discussion, showing that he kept himself abreast with the progress made in medicine. He was one of the very few left among us who attended the course of lectures when Drs. March and Armsby first began their teaching.

It was not often that he would speak of his father, but, when one had an opportunity of drawing him out somewhat, it was very interesting to have him relate the story of his father's experience in the typhoid fever epidemic, which has been referred to.

For a number of years I have been well acquainted with Dr. Wade, and have met with him in consultation. His conversation always left a pleasant impression—the impression that he was noble in all his traits of character, honest, honorable, upright, truthful.

Dr. Vander Veer moved that the biography read by Dr. Hale be entered in full on the minutes of the Society as a memorial of Dr. Wade. Carried.

Dr. R. D. CLARK read a lengthy document on "Oleomargarine."

Dr. S. B. WARD: I have listened with very great interest to the exhaustive paper of Dr. Clark's. As most of us have morning office hours I will not say what I had intended to, but I would like to move that a vote of thanks be extended to Dr. Clark for his very interesting paper. Carried.

Adjourned.

LORENZO HALE, *Secretary pro tem.*

ALBANY
MEDICAL ANNALS:
A Journal of the Medical Society of the County of Albany.

Vol. VII. APRIL, 1886. No. 4.

CASE OF PERFORATING ULCER OF THE STOMACH, WITH REPORT OF THE AUTOPSY.

BY C. L. SQUIRE, M.D., ELMIRA, N. Y.

[FOR ALBANY MEDICAL ANNALS.]

Mrs. W. R., aged thirty-one years, was first seen by the consulting physician, who furnishes me with the notes of the case, December 19, 1885. Mrs. R. was married when nineteen; was unwell first at the age of thirteen; she was never regular. She had her first child when she was twenty-one years of age. Her second child was born when she was twenty-five years old. She had one miscarriage between the births of her first and last child; she has not miscarried since. She was not unwell after the birth of her last child till the last days of June, 1885; at that time there was merely a show of color.

The patient was a hard-working woman, and continued at her occupation—the work usually allotted to a farmer's wife—till the date of her attack, October 25, 1885. On October 24 she had an extra-hard day's work, as threshers were there. For a month previous to this she had not been feeling well, and thought that she was pregnant, and told her husband so. Her stomach had always troubled her. In the evening of October 25 she had succeeded in sweeping the house after the men had left, and was in the act of undressing her children for bed, at 9:30 o'clock, when she was taken suddenly sick, with pain and cramp low down on the left side, and in the endeavor to rise from her chair fell to the floor, weak and unable to move. She was lifted on to a couch and towards morning placed in bed. The attending physician was summoned, and reached the patient two hours after she fell, and remained with her till morning. She has remained in bed in very much the same position, and not put her foot to the floor since. Pain continued in the same place, up and down, in the left side. The reporter says that when he first saw her "it appeared as if she had a pleuro-pneumonia; she coughed some. She vomited in ten minutes or less after she fell to the floor, and for these seven weeks vomiting has been a main symptom." He further says: "There is now a central oval tumor extending from the pubes to near the umbilicus. It is sometimes larger than it will appear at other times. She has had what seemed like labor pains, as often as every five minutes, in which the tumor becomes very hard. On introducing the catheter, it was found necessary to direct the instrument almost backward to enter the bladder; only a little water was drawn. There appears to be nothing abnormal to the touch in the vagina. The os and cervix central; cervix long and has some lacerations. There seems to be a tumor or fullness of the right side of the cervix and extending up under the pubic bone. There is either a tumor of the womb or right ovary or broad ligament, which is growing."—(Dec. 19, evening notes.)

"Patient is greatly emaciated and is becoming flighty; sings and talks at random."—(Dec. 20, afternoon visit.)

"Found her still more unconscious; had been singing and gesticulating with hands and feet during the night. Used a gum elastic catheter, without a stylet, for a sound; it readily entered six and one-half inches into the uterus; a few drops of blood escaped from the pavilion. I can come to no conclusion as to the nature of the tumor. It may be intra-mural, quick-growing soft cancer of the anterior or right wall of the uterus. Hardly possible that it is extra-uterine pregnancy. Simple hematocele does not meet the symptoms."—(Dec. 21, evening notes.)

"Reflecting on all the symptoms of this case, I now think the only rational explanation of them is to suppose the condition to be one of extra-uterine pregnancy."

Mrs. W. R. died at a quarter of one o'clock in the afternoon of December 23, at her home at Seeley Creek, Pa. She was under the medical care of Dr. W. H. Leonard for a period of eight weeks. At the time of her attack she was in her natural weight, though her husband said that she had been losing flesh all summer. For a long time her stomach had troubled her. She was a very small eater; she ate scarcely any vegetables; never ate potatoes, for they disagreed with her. Her food was bread and butter, with a little sauce; very little meat. For several years she has vomited, especially after eating. Four years ago this winter she was sick in bed for a month and a half with a difficulty of the stomach. Since the birth of her first child she has had some form of female weakness. At twenty-six her weight was 115 pounds, the most that it ever had been; the average or normal weight was 104; her height was 5 ft. 5 in. Constipation has been her habit, often going a week without a passage from the bowels. Her urine was examined during her illness and found normal. She had regarded herself pregnant, dating from the only time that she had seen a sign of show for six years. After death a four-month fœtus, within its membranes, was found lying between her thighs by the nurse, and shown to me at the time of the examination.

Autopsy.—An incision was made from the semilunar notch of the sternum to the symphisis, through the integument and a very thin bronze-colored connective tissue. Not one drop of fluid blood was encountered along this line. The vessels of the navel cord passed to the left of the incision; they were normal. The abdomen was first opened by passing a director beneath the wall and separating it from the omentum from above downward, until within two inches of the pubes; it was then no longer adherent to the anterior wall; passing backward it formed a diaphragm, separating the bowels from the pelvic organs. Further division of the abdominal wall below this point to the symphysis exposed a great cavity occupying the entire pelvis. The usual cross incisions were made, exposing the omentum.

The thorax was first examined. The anterior portion of the lungs was very light in color—almost white—and filled with air; the posterior portions were filled with blood, and had the purple hue common in post-mortem change. The diaphragm was well arched upward. The heart was small and contracted. The blood vessels passing off from the heart were normal. There was no evidence of an inflammation of the pleura. On the left side the diaphragm was found quite inflamed over a spot the size and shape of a watch case. When examined a second time, this surface was found thinned at the expense of the abdominal surface just above the stomach. In the center of this spot was an ulceration or accidental rupture, which would easily admit the ball of my thumb. About two ounces of thin pus were removed from the left pleural cavity. This pus was discovered in the chest before the opening was found in the diaphragm, and led to a careful examination, as there had been no evidence of an inflammation within the thorax. The entrance of this pus must have been through the accidental rupture of the thinned wall during the examination of the abdomen. The right cavity of the thorax contained no fluid.

Abdomen: The muscles of the wall were very thin and dark in color. The *omentum* had been everywhere attached to the wall, but the most firmly along its edges. There was not a general redness of this membrane to denote inflammation, but its vessels were distended with fluid blood. The *spleen* at first was not visible, but search in its locality, by an incision through the omentum, or rather by separating it from the lateral wall of the abdomen, revealed it to have been sealed up in a pyogenic cavity, attached by its concave surface to the inner wall of the artificial sack. It was three and a half inches long and two inches wide. Four and one-half ounces of thick and flocculent pus were removed from this cavity, the walls of which were covered by a flocculent deposit. The *kidneys* and *snpra-renal capsules* were normal. The *bladder*, as seen in the bottom of the pelvic cavity was collapsed, and contained no urine. Its posterior wall was attached around its edges to the uterus by pyogenic membrane, which attachment was easily broken up, and exposed a highly vascular and inflamed posterior surface within the boundaries of its late attachment. The *internal organs of generation:* The fundus of an enlarged uterus was seen in the center of a quantity of flocculent pus, and, from the deposit on its surface of the fibrous sediment, the organ resembled the pus in color, which was decidedly straw-color. Thirteen ounces of pus were removed, and the cavity was emptied. It was then discovered that to the left of the floor of Douglas' pouch a rupture had occurred, through which the finger could pass in a pus-dissected track in the triangular space bounded internally by the vagina and rectum and externally by the wall of the pelvis. The rectum was then tied above, and the lower part of the gut, with the uterus and vagina, were removed together. In this dissection the lower lateral corners of the pus cavity were cut off; otherwise the sack was also removed with the uterus and vagina. This cavity did not communicate with the interior of the uterus nor with the vagina. The *Fallopian tubes* on either side were natural, and at the free extremity were folded backward; the fimbriated extremities were highly congested, perhaps a little enlarged, and had freely floated in the fluid. The *ovaries:* Both ovaries were of normal size; they had a smooth surface, and showed no attempt at ovulation. A single corpus luteum was noticed on the right ovary, and upon incision revealed a state of fatty degeneration. A cyst the size of an almond nut was found in the right broad ligament. The *vagina* was examined by turning back its anterior wall, and found to be covered with fluid blood. Filling the upper third lay the ponderous neck of the uterus, which was also covered with blood, and around the ragged edge of the os was a ring of dried blood. The neck was flattened antero-posteriorly, as was also the uterus. The os would admit my three fingers side by side. The removed portion of the vagina was a little over three inches long and the diameter of the flattened calibre three inches and a quarter. The *uterus:* The body was four inches and a half in diameter, and was like a flattened globe. The anterior wall was opened in the median line, which incision was carried through the neck and vagina; the wall of the body was one-half inch thick; the neck was two inches long. Upon the internal surface of the cervix could be distinctly seen the arbor vitæ uterinus. The internal wall of the uterus plainly showed that it had recently contained a fœtus, from the shreds of the chorion still attached to its surface, from the large size of the cavity, and from the denuded surface on the right antero-lateral wall where the placenta had been attached. The *rectum* was perfectly natural, and was stained on the inside by the contents of the bowel. The intestines, especially the *duodenum*, were carefully examined and found in their normal condition. The *stomach* was found to consist of two portions caused by an hour-glass contraction at its center; at this point it was adherent to the edge of the liver by firm attachments. The pyloric end of the stomach resembled a diminutive stomach, and presented no pathological features. It would hold about eight ounces of fluid. The cardiac pouch was firmly adherent to the diaphragm and the free surface greatly thickened. The attachment to the liver was removed with difficulty by the fingers; the separation from the diaphragm was much more difficult. The œsophagus was tied and the duodenum, also. The stomach was removed. A small *perforation* was found near the constriction, but on the cardiac side of the lesser curvature. The size of this opening was two lines in diameter, circular and smooth on the surface. The contents of the stomach were continually oozing from this orifice. The constriction was thickened and unyielding, and on opening the stomach would scarcely admit my little finger. The normal pyloric orifice would easily admit my little finger. The internal coat of the stomach showed many cicatrices of old ulcers and eroded surfaces aside from the one which was perforated. Other organs of the body were normal.

PASTEUR AND KOCH, AND THE GERM THEORY OF DISEASE.*

BY DR. HERMANN M. BIGGS, BELLEVUE HOSPITAL MEDICAL COLLEGE, NEW YORK.

[REPORTED FOR ALBANY MEDICAL ANNALS.]

Dr. Biggs commented on the increased attention which the germ theory now commands. Scarcely any thing was really known about it till very recently, and it was generally scouted till Pasteur elucidated it.

Bacteria are on the confines of animal and vegetable life. They are, however, vegetable, not animalcules. They are found everywhere in vast numbers. In size they vary from less than 1-100,000 inch up to 1-100 inch in diameter. They vary in form, and are classified according to their form, the round ones receiving the name of micrococci, the spiral ones spirilla, and the long ones bacilli.

Without their presence life would be impossible, yet they are the causes of many diseases, such as measles, consumption, small-pox, cholera, rabies, diphtheria, pneumonia, yellow fever, etc. Of course, these germs are not the same as those which are essential to life.

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* Abstract of the closing lecture of the Science Matinee series, delivered at the Hotel Brunswick, New York, March 11, 1886.

Pasteur and Koch are the two great representatives of the scientific schools of France and Germany. Pasteur is not himself a physician, and his inoculations are performed by an assistant who is licensed to practice medicine.

Pasteur is about sixty-five years of age. His father was a soldier who received a decoration from Napoleon. His mother was a peasant. In 1868 he sustained a stroke of paralysis, and has never fully recovered the use of his left side. His mind was not shattered, as some of his best work has been done since that date. He is quick tempered, and his assistants constantly dread an explosion.

His laboratory is sustained by the government, which pays him an annual salary of 50,000 francs. He makes no charge for inoculations for hydrophobia. He has another laboratory for the investigation of "anthrax."

He first became famous in 1865 by his studies in fermentation, which he found to be caused by living organisms. The wine ferment is destroyed by a temperature of 120° F., giving a means of preserving wine.

He afterwards took up the diseases of silkworms, and discovered their nature and remedy. At this time he was paralyzed. He, however, took charge of a villa in connection with silk culture, from which he sold 26,000,000 francs of product in a single year.

He then investigated the theory of spontaneous generation, and refuted the possibility of it. On this result rests our whole theory of antiseptic surgery. In abdominal surgery, a few years ago, the opening of the abdomen was supposed to be necessarily fatal. But now Lawson Tait has performed the operation 1,600 to 1,700 times, with only three per cent. of deaths, and in the last 150 cases not a single death.

Pasteur then took up anthrax, a contagious disease of animals, usually fatal. Even the pasturage where they feed becomes contaminated so as to communicate the disease to others there pastured after years, sometimes, of delay. Koch's work on anthrax, just published, attracted Pasteur's attention, and he devised the scheme of inoculation as a preventive. In a public experiment on two flocks of sheep, one of which had been inoculated and the other not, at the end of three days the protected flock remained unharmed, while of the other, twenty-one out of twenty-five were dead and the rest dying. In 1883–4 more than half a million animals were inoculated in France, reducing the mortality to one in fifteen sheep and one in ten cattle.

After investigating a number of other diseases, he turned his attention, about five years ago, to rabies. At that time he thought he had discovered a new germ in the saliva of a child, but he afterwards admitted this to be an error. He found that in animals dead of rabies the virus was abundant in the brain and nerve centers, and that inoculation with this matter was a protection from rabies. Previously it had been supposed that only the saliva could inoculate. On successively inoculating a series of monkeys with this virus, it died out at last, but in rabbits, on the other hand, it increased greatly in intensity, and the period of development was reduced from fifteen days to seven. On drying the spinal cords of these rabbits the virus gradually weakened. By inoculating dogs with virus of gradually increasing strength he found that they became insusceptible of hydrophobia; and, having successfully treated fifty dogs, he applied the same treatment to a boy, Joseph Meister, who had been bitten in fifteen places. More than six months have elapsed, and the boy is well. Within the last four months three hundred persons have been treated, only one of whom developed hydrophobia. In that case thirty-six days had elapsed from the time of the bite to that of the inoculation. The period of development of hydrophobia in man, though usually more than thirty-six days, is not always so.

DID PASTEUR'S INOCULATION PRODUCE RABIES?

The question then arose whether the disease was not due to the inoculation. The answer was found in the fact that if the disease were caused by the bite of the dog the virus would require fifteen days to develop in rabbits inoculated with it; whereas, if due to the inoculation, the development would take place in seven days. The inoculated rabbits lived fifteen days, thereby proving that it was the bite, not the inoculation, that killed the patient. The children sent from Newark were not bitten by a rabid dog, but no doubt the majority of Pasteur's patients were so bitten. Hisstrongest cases thus far, however, have been those of dogs.

Koch is very unlike Pasteur, being only forty-three years old and inferior in appearance. His first important work was that on anthrax, which attracted the attention of Pasteur, as already noted. This was followed by investigations of septicæmia and pyæmia. He showed that they were due to germs. This led to his appointment on the imperial board of health. His celebrated work on consumption followed, in which he proved that the bacillus was constantly present. He cultivated this germ to the sixteenth or seventeenth generation, and therewith induced consumption in animals. He also demonstrated "specific" staining; that is, the germ was stained by certain dyes in a manner differing from any other. He was thereafter sent to Egypt on the commission to investigate cholera, and he proved that also to be a germ disease due to bacilli.

America has hardly done any thing in such researches. Two years ago there was no properly equipped laboratory in this country; now there are two, one at Johns Hopkins' University, the other in this city, for the investigation of the nature and cause of disease.

France, by the expenditure of 50,000 francs a year, has effected a saving of many millions annually in wine and beer, and of hundreds of millions annually in silk industry, and of other hundreds of millions in prevention of anthrax in cattle.

Perhaps Koch's greatest work is in the culture of micro-organisms. The culture medium now ordinarily used is called Koch's jelly. It is substantially beef bouillon, solidified by the addition of jelly. *Agar agar* is used for cultures wherein the germ must be kept at a temperature higher than that of the human body. Blood serum, milk and potatoes are also used. These substances putrefy unless sterilized by boiling. When thus prepared, the germs contained are destroyed, and the fluid will keep for years. This fact disproves spontaneous generation. The lecturer had seen, in Pasteur's laboratory, culture tubes prepared in 1863 and still clear.

The culture is initiated by introducing, on a fine platinum wire, the smallest possible drop of the substance to be tested into the culture tube, then heating it till the jelly melts and shaking all up together. An equally minute portion of the resultant must then be introduced into a second culture tube, or else the germs will be so abundant that the culture would be of no value. The contents of the second tube being also warmed and shaken up, are poured out on a sterilized glass plate artificially cooled, and the colonies of germs thus formed may be selected and treated in separate culture tubes as desired. Some of the germs develop and propagate in twenty minutes, at which rate of multiplication a few hours will suffice to produce millions of them.

The lecture was illustrated by a large collection of culture tubes, and recent engravings of micro-organisms, and by a series of cultures of atmospheric germs on potatoes, conspicuous among which was the brilliant scarlet micrococcus prodigiosus, which sometimes develops in the atmosphere in such volume as to cause the so-called "blood showers." W. H. H.

PESSARIES IN THE TREATMENT OF UTERINE DISPLACEMENTS.

BY J. R. JACKSON, M.D.

About two years ago I read an article in a medical journal, written by Dr. Fitzgibbon, of London, England, on the above subject. In that article he especially recommended Dr. Herrick's pessary, and his theory of treating displacements of the uterus. At the time of reading his article I thought perhaps the writer was unduly carried away with a, to him, new thing. Still, I was quite favorably impressed after reading his paper, for the theory looked to me as being nearly correct. That theory, as I remember it, was that all displacements of the uterus backward were always preceded by prolapse, and that the uterus in descending simply followed the different pelvic straits; and when the prolapsed uterus was in or at the lower strait, the fundus of the organ must be in a condition of retro-version, as the *os* must be somewhat higher than the fundus at that point. Every physician will, I think, agree with me that the *os*, if it protrudes at the vulva, must be somewhat elevated in order to follow the curve of the pelvic cavity. If this point is conceded, then the theory seems rather plausible. The article before mentioned claimed that to overcome such displacements the uterus must be elevated to its normal height and held there; also that the pessary should make pressure against the *anterior* portion of the uterine neck instead of against the *posterior* of either the neck or fundus; in other words, the pessary should push the uterine neck *upward* and *backward* toward the hollow; or, better still, the promontory of the sacrum; and, if the pessary held the uterine neck in that position, the fundus must stay forwards towards the bladder, or the laws of gravity be reversed.

Soon after reading Professor Fitzgibbon's article I went abroad, visiting the colleges and hospitals of London and Paris while away. To my surprise I found quite a number of these pessaries in use in both places. Of course, there were other American pessaries in use there, such as Hodge's, Cutter's, Thomas's, and others, but, I think, quite as many of Herrick's as of either of the others. I asked some of the physicians using them how long they had been in use there, to which they replied "only a year or two," and gave as their reason for preferring them, that they thought the theory the pessary worked on was the most nearly correct of any in use; and they then asked me if the instrument was used much in America, and what our American doctors thought of the pessary and the theory of application. I must confess I was a little ashamed to tell them I did not know what American physicians thought of an American pessary, so I got out of it by saying that the instrument was quite a new one and had not been thoroughly tested yet, but that the physicians who had used it thought very well indeed of it.

My attention being thus drawn to this pessary, I have given it a thorough trial since coming home, and have been able to hold the uterus in place with it in cases where I had utterly failed with all other kinds. The theory of Dr. Herrick, the inventor of this pessary, is that all forms of retro-displacements are but different degrees of prolapse, excepting, of course, accidental displacements from falls or other injuries where the uterus is suddenly thrown into a retro-position. But all cases which come on as the result of weakening of the natural supports of the uterus, such as laceration of the perineum, want of tonicity of the vaginal walls, or sub-involution of the uterus, where that organ is too heavy for the weakened vagina and ligaments to hold it in position, both he and Professor Fitzgibbon, in the article before referred to, claim are but cases of prolapse originally. The results obtained here by myself and others in the use of this pessary, and the experience in London and Paris of capable men, surely point to the truth of the theory advanced by the inventor.

Foreigners are not apt to take up any new thing originating in this country unless they have exceptionally strong evidence of its utility, and I am free to confess that it was their notice and indorsement that first led me to fully recognize the merits of instrument and theory.

I could give the history of fifty cases treated by this plan and with this pessary, with the the most happy results, where many other pessaries of the most approved make had failed, both in my hands and in the hands of other physicians, but each case would be but a repetition of the other.

I will simply say, in conclusion, that I do not know either Dr. Herrick or Professor Fitzgibbon, and have not the slightest interest in them or the pessary in question, but I simply write this article to call the attention of the medical profession to what I consider a discovery in the treatment, mechanically, of uterine displacements, and surely any discovery in that direction should be welcomed, for mechanical treatment of that trouble heretofore, if not actually barren of results, has been near enough so to make many physicians quite skeptical as to the good to be obtained from the use of pessaries.—*The Medical Bulletin*, Philadelphia, February, 1886.

ABSTRACTA.

The Microbes Have Had Their Day.—The discovery by M. Gauthier of the part played by ptomaines and leucomaines is a terrible blow to the microbian theory, as it has been demonstrated that the non-elimination from the body of dead animal matter is the source of all human ailments. Professor Peter has always been vehemently opposed to the bacillary theory of the etiology of disease, and looks upon the discovery of ptomaines and leucomaines as a new era in medicine. Although he himself had foreseen the existence of such elements as causes of disease, it was left to M. Gauthier, the eminent chemist, to formulate his theories in a more scientific manner.

This new theory formed the basis of a very interesting paper read by Professor Peter at the Academy of Medicine, in which he makes out that this new theory of auto-infection is quite compatible with clinical observation, whereas the microbian theory is so shrouded in mystery that Koch himself has been induced to considerably alter his opinions respecting the rôle of the comma bacillus in the development of cholera, and now declares that the disease is caused by a ptomaine secreted by a bacillus.

In concluding his paper, Professor Peter made the following remarks: " M. Gauthier has shown that in the dead body, and even in the living, ptomaines are found; these alkaloids, ptomaines or leucomaines, are absolutely toxic; an auto-infection, characterized by hyperthermia, is the result. This theory rids us, at least for a time, of the tyranny of the microbes. If urea, which is an alkali, is constantly formed in our organism, why should there not also be formed an alkaloid in it? It is only a question of degree. Life is a contingent phenomenon; it is a series of partial deaths. It may, therefore be said that we carry in ourselves while living a portion of our own corpse, but we resist the work of auto-infection by two distinct mechanisms—the elimination of the toxic substance and its destruction by oxygen. We should no longer hesitate between the parasitic doctrines, which are shrouded in dark hypotheses, and this new doctrine, which is as luminous as it is precise, which explains the phenomena of normal and abnormal life."—*Paris Letter to Lancet.*

PTOMAINES AND LEUCOMAINES.—In 1870 M. Armand Gauthier first announced that the putrefaction of proteid substances gives rise to certain alkaloidal products. About the same time Selmi, of Bologna, communicated to the Academy of Sciences of that city a memoir that set forth that the stomach of persons who died a natural death contained, after a period of time, substances that behaved toward particular reagents in a manner identical with vegetable alkaloids. He also showed that the same substances are present in the alcohol that has been employed in the conservation of anatomical and pathological specimens. To these substances the name ptomaines was applied.

Gauthier and Itard, Gareschi and Mosso, and G. Pouchet, are notable for their work in defining the composition of the majority of these crystalline bodies.

Recently Brouardel and Boutmy, and Brieger, show that at different stages of the putrefactive process different bases of this character are developed, and that the same species of bacteria may furnish products of a highly different character, corresponding to differences of soil. For instance, the bacteria of putrefaction in their multiplication upon the flesh of mammals are attended by the development of an alkaloid far different from that developed upon the flesh of fish.

In 1881 M. Gauthier discovered that there were present constantly in the normal excretions of healthy, as well as sick beings, substances that closely resemble the ptomaines. Such substances are the alkaloids discovered by Liebrecht and G. Pouchet in the urine. Such peculiar bodies were also found normally present in the saliva, etc. In order to distinguish them by a name from the cadaveric alkaloids, the term leucomaines was chosen for them.

Gauthier also demonstrated the presence, even in a state of health, of certain nitrogenous extractive substances, non-crystalline and non-alkaloidal, in the secretions. These he finds to possess a high degree of toxicity, much higher than either the ptomaines or leucomaines. The virulence of snake-bite, for instance, he found to be due to the presence of such substances.

Up to the present time it has been admitted that these animal alkaloids, physiological and pathological, arose as a consequence of fermentative action. The leucomaines, taking them as an example, were supposed to arise in septic maladies by the specific action of pathogenic microbes, and in health by the intestinal processes of fermentation that accompany digestion. Gauthier has a different conception of their origin. Starting from the premise, which is well established, that every being in a state of health excretes more oxygen than is assimilated, Gauthier entertains the belief that this excess is produced by the auto-combustion of aliments and tissues, leading to the production of the ordinary products of disintegration, *i. e.,* carbon dioxide, water, urea, etc., without any access of oxygen from outside the organism. In the tissues themselves, independent of the outer world, disintegrations take place, and we may assume that the tissues, at least in part, are possessed of vital qualities akin to those observed in fermentative processes.

Gauthier goes on to state that if the intimate life of the animal cells, grouped in a certain tissue and living without oxygen derived from outside, shows a similarity in the phenomena of assimilation and disintegration to the processes of bacterial fermentation, then we may look in the excreta so produced for the identical substances that characterize the products of putrefactive fermentation. And, he says, we actually find in the normal secretions the identical substances peculiar to true putrefaction, to wit, carbon dioxide and ammonia, in part free, in part as compounds, phenol, indol, scatol, acetic and lactic and butyric acid, etc. The identity is almost complete, and it is therefore no matter of surprise that the normal excretions of the kidneys, of glandular apparatus, and the blood itself, should contain these toxic alkaloids and extractives.—*The Weekly Medical Review*, St. Louis, March 20.

TERPENES: $C_{10}H_{16}$ or $(C_{10}H_{16})x$.

A. *Natural Terpenes.*

$\left.\begin{array}{l}\text{terebenthene}\\ \text{australene}\end{array}\right\}$ from oil of turpentine

(and others).

B. *Artificial Terpenes.*

camphene (and terebene)

colophene

(and terpenes from many volatile oils: cajeputene, cedrene, menthene, etc., etc.).

C. *Derivatives of French Oil of Turpentine* (terebenthene) *only.*

terpene hydrate.

D. *Derivatives of any Variety of Oil of Turpentine.*
terpene hydrochloride
terpin hydrate
terpin
terpinol
terpinene
terpilene (terpinylene).

As there are oils of turpentine of opposite optical properties, so there are two kinds of terpenes, namely:

Terebenthene (*or terebentene*), which is lævogyre, and only obtained from French and other left-polarizing oil. The terebenthene from French oil of turpentine boils at 156° C. (312.8° F.) and has a spec. grav. of 0.8767 at 0° C. (32° F.). The corresponding figures of other left-polarizing terebenthenes are not certain.

Australene, which is dextrogyre, and obtained from American and other right-polarizing oil. The boiling point and specific gravity of this appear to vary somewhat according to the source.

Terpenes, in general, are very easily polymerized. So it is, for instance, only necessary to heat oil of turpentine to 300° C. (572° F.) in sealed tubes. It will then be changed into a mixture of *metaterebenthene* (probably $C_{20}H_{32}$), boiling above 360° C. (680° F.); and into either of the following two isomeric varieties of the original terpene: 1. *dextro-isoterebenthene*, and 2. *lævo-isoterebenthene*, according as a right- or left-polarizing terpene has been used.

When oil of turpentine is shaken with sulphuric acid, it is converted into *camphene*, *terpilene*, *cymol*, *colophene*, and a hydrocarbon: $C_{10}H_{20}$. According as a right- or left-polarizing oil has been employed, a correspondingly polarizing camphene is produced. Yet by repeatedly distilling or shaking the product with sulphuric acid, there is at last produced a variety of *camphene* which is optically inactive, and which is the substance named.

Terebene.—St. Claire Deville first studied the terebene produced by the action of sulphuric acid upon oil of turpentine. J. Riban subsequently found that this "terebene" could be split into the following substances:

1. Terebene, boiling at 155°–156° C.
2. Cymol, boiling at 174°–176° C.
3. A camphor-like body, boiling at about 200° C., and melting at 169° C.
4. Colophene, boiling at 318°–320° C.
5. Higher boiling bodies.

The "pure terebene" thus obtained by Riban was a colorless, mobile liquid, not becoming solid when cooled to 27° C. (81° F.), and possessing a faint odor.

When crude terebene, however, is freed from high- or low-boiling fractions, it forms a white crystalline mass, melting at about 50° C. (122° F.), and boiling at about 160° C. (320° F.). These two values, when corrected to normal temperature and pressure, so closely approach those given for the inactive camphenes that they may probably be considered as identical.

However this supposed identity may eventually turn out, the name *terebene* appears to be confined to a well-characterized substance, and being free from ambiguity, should be retained at least as a medical and commercial term.

This substance, terebene, differs from cymol only by having two more atoms of hydrogen, and is closely related to it, and through it to the benzol group, for cymol itself is now recognized as propyl-toluol.*

When the crude product obtained by mixing oil of turpentine and sulphuric acid is distilled with steam (which causes crude "terebene" to pass over), there remains in the retort crude colophene, which, when distilled by itself, likewise yields camphene, terpilene, cymol, and the hydrocarbon $C_{10}H_{20}$.

Terpene Hydrate ($C_{10}H_{16}.H_2O$) is derived from left-polarizing (French, etc.) oil of turpentine. It may be prepared as follows: Mix 2 parts of French oil of turpentine with 3 parts of 90-per-cent. alcohol and 1 part of sulphuric acid of spec. gr. 1.640, shake frequently at first, then set aside for twelve days, separate the terpene and rectify it, preserving the portion boiling between 218°–220° C. (424°–428° F.). It is an oily liquid, of the spec. gr. 0.9201 at 18° C. (64.4° F.), insoluble in water, but soluble in a mixture of 2 parts of 90-per-cent. alcohol and 1 part of sulphuric acid (sp. gr. 1.640).

Terpene Hydrochlorides. When hydrochloric acid gas is passed through any kind of oil of turpentine, best after its dilution with benzol or carbon disulphide, a solid substance, *terpene (mono-) hydrochloride*, $C_{10}H_{16}.HCl$, is formed, which is also known as "artificial camphor." Other hydrochlorides exist.

Terpin Hydrate, $C_{10}H_{16}(H_2O)_2.H_2O$, may be be prepared from any kind of oil of turpentine. Of pure terpenes only those yield this substance which have the lower boiling points. Terpenes boiling at about 176° C. (348.8° F.), and over, yield none.

This substance, which must neither be confounded in name with terpene hydrate, nor in appearance with terpene dihydrochloride, or other similar bodies, is formed in various ways. It is slowly produced when oil of turpentine remains for some time in contact with water. More rapidly, by exposing 8 parts of oil of turpentine, 2 parts of nitric acid (spec. gr. 1.250), and 1 part of alcohol of 80 per cent., to the air in a shallow vessel, frequently agitating at first. Or by mixing in a flask 1 volume of nitric acid (spec. gr. 1.400), 1 vol. of wood-spirit, and 2½ vol.

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* *Benzol* is C_6H_6.

Phenol is benzol in which 1 at. of hydrogen is replaced by HO (hydroxyl): $C_6H_5.HO$.

Toluol is benzol in which 1 at. of hydrogen is replaced by methyl (CH_3), and as it is thus analogous to phenol itself it has been defined as phenol-methane: $C_6H_5.CH_3=C_7H_8$.

Cymol or Propyl-Toluol is toluol in which an additional at. of hydrogen (of the benzol nucleus) is replaced by propyl (C_3H_7): $C_6H_4.CH_3.C_3H_7=C_{10}H_{14}$.

of oil of turpentine, agitating frequently during two days, then pouring into an open dish, and adding small quantities of wood-spirit every other day.

Terpin hydrate crystallizes in large transparent rhombic crystals, which lose 1 mol. of water at 100° C. (212° F.), and becomes *terpin.* Mere exposure over sulphuric acid will also drive out the third molecule of water. The crystals are inodorous and tasteless, soluble in 200 parts of cold, or 22 parts of boiling, water, in about 7 parts of 85-per-cent. alcohol, and easily also in ether. From hot glacial acetic acid they may be obtained of great size and beauty. Crystals of this compound, of considerable size, are sometimes met with in trunks of pine trees.

This *terpin hydrate* has recently been recommended by Lepine as ' the best expectorant in existence."

Terpin: $C_{16}H_{16}(H_2O)_2$. When terpin hydrate has been deprived of the third molecule of water, it becomes "anhydrous" terpin: $C_{10}H_{20}O_2$. This melts at 103° C. (217.4° F.), subliming in slender needles, and boils at 250° C. (482° F.). It is very hygroscopic, and changes to terpin hydrate by mere exposure to moist air.

When treated with anhydrous phosphoric acid $(P_2O)_5$ it is converted into "terebene" and colophene.

Terpinene. When terpin is treated with moderately strong sulphuric acid, there results *terpinene*, boiling at 176.5°–181.5° C. (349°–358° F.), and optically inactive (Laubenheimer).

Terpinol: $(C_{10}H_{16})_2H_2O$. If an aqueous solution of terpin be heated with a small quantity of hydrochloric acid, *terpinol* is produced, which is an oily liquid, having an odor resembling that of hyacinths, boils at 168° C. (234.4° F.), and has the spec. gr. 0.852.

The same substance may also be produced by boiling terpene dihydrochloride with water or with alcoholic potassa, or by distilling terpin with moderately dilute sulphuric acid.

Terpilene or Terpinylene $(C_{10}H_{16})$ is formed by warming terpene dihydrochloride (of the melting point 48° C.=119° F.) by itself; or, by boiling terpin with a mixture of 1 vol. of sulphuric acid and 2 vol. of water, and fractionating the product. It boils at 176°–178° C. (349°–352° F.), and has the spec. grav. 0.8526 at 15° C.

It will be noticed that a comparatively small change in the kind or strength of acids or other modifications in manipulating oil of turpentine, and terpenes in general, may result in the formation of substances differing considerably from each other. It is, however, not at all improbable that some of these, now recognized as chemical individuals, will in the future be shown not to have a separate existence.

Medicinal Terebene, according to Dr. Hirsch, when perfectly pure, is a white crystalline mass. In the form in which it is used as an antiseptic, it appears as a clear, colorless, optically inactive liquid, having a pleasant odor resembling that of thyme, the spec. grav. 0.860, and boiling at about 156° C. (313° F.).—*American Druggist*, New York, April 1886.

Terpinol in Diphtheria.—Dr. Demlow (*Allg. Med. Central Zeitung*) gives Satlow's formula: Rectified oil of turpentine, 10 drams; spirits of ether, 2½ drams. Of this mixture from two to three teaspoonfuls are given daily. The improvement, after the first dose, is generally so great that he finds but little difficulty in persuading the patient to repeat the remedy, notwithstanding the atrocious taste.—*National Druggist*, St. Louis.

Terpine.—Reber, in *Der Fortschritt*, June 5, 1885, gives the following directions for making terpine: Four parts of oil of turpentine, three parts of 80-per-cent. alcohol, and one part of nitric acid are mixed in a bottle and frequently shaken, as the mixture on standing continues to separate into two layers. After fifteen or twenty days the fluid assumes a reddish tint, and large crystals form in rosette-like groups. These, after having been pressed between filter-paper, to free them from oil of turpentine, are again dissolved for recrystallization in 95-per-cent. alcohol, to which a minute quantity of caustic potash has been added for the purpose of removing any trace of free nitric acid. This concentrated solution having finally been filtered and left undisturbed in a low temperature, the formation of white needle-shaped, silky crystals of terpine takes place.—*London Medical Record*, Nov. 16, 1885.

The Therapeutic Properties and Indications of Terpine.—Éloy says an objection to turpentine and its derivatives is its insolubility in watery vehicles. Terpine is a white crystalline powder, soluble in 200 parts of cold water and 6 or 7 parts of alcohol. It has a bitter taste, but is not nauseating. In the proportion of 1.5 per cent. of the weight of the animal, Lépine has found it to produce in the dog albuminuria, hematuria, change of respiratory rythm, elevation of temperature, and finally death.

With man, in 3- to 5-grain doses, it augments the bronchial secretion, renders thinner the sputa, and acts as an expectorant. In 12- to 15-grain doses it excites contraction of the vessels of the mucous membrane and checks bronchial secretion—acting as a desiccant or hemostatic. In moderate doses it seems to act as a diuretic without altering the proportions of uric and phosphoric acids and the chlorides. It is better to use in neuralgias than turpentine, because it does not upset the alimentary canal. It is best prescribed in alcohol and flavored water, and taken with the meals.—*L' Union méd.*, Dec. 12, 1885.

Terebene for "Winter Cough" and Chronic Bronchitis.—Terebene is a colorless liquid, with an odor like fresh-sawn pine wood. It will not mix with water, but can be given on sugar, five or six drops every four hours, gradually increased to twenty minims. It gives a peculiar odor to the urine. As a spray, from one to two ounces should be diffused and inhaled every week.

Dr. Bond, of Gloucester, disputes with Dr. William Murrell, of London, the claim of priority in the use of terebene in medicine. The patent is not valid to prevent manufacture.

Dr. C. W. Sucking, in the *British Medical Journal*, says: "Terebene relieves the dyspnœa of chronic bronchitis, is very variable in action with different patients, and is by no means a specific."

Gonorrhœa.—S. O. Vander Poel, Jr., M.D., visiting surgeon to Charity Hospital, New York, in *The Medical Record*, gives results of systematic observations at Roosevelt Hospital under supervision of Dr. William S. Halsted.

Hot-water irrigation, solutions of acetate and sulphate of zinc, sulphate of lead, carbolic acid, salicylic acid, peroxide of hydrogen, tannic acid and nitrate of silver were used, for the most part with indifferent success.

Half-ounce doses of iodoform ointment (1 to 6 of cold cream) were introduced through a blunt glass nozzle from compressible artists' paint tubes, without discomfort (which was an objection to the soluble bougies of Watson Cheyne); micturition was less frequent, and itching was allayed, but the amount of discharge and the duration of the disease were not lessened.

Bichloride of mercury solution, 1 to 10,000, caused inflammatory reaction, which was modified by irrigations of boric acid, which latter is one of the most soothing applications in urethritis, although its destructive action on the gonococcus is almost *nil.* Bichloride of mercury solution, 1 to 40,000, from a fountain-head about four feet above the pelvis of a patient as he sits on the edge of a chair, was found most serviceable; two or three quarts flow from a blunt nozzle held in the meatus, so that the fluid may permeate the entire canal and escape by the side of the nozzle. If much irritation, and especially if a blood-tinged discharge, should follow, it is best to discontinue the irrigations for a day or two, or use a 1 to 60,000 solution. The gonococic disappear on the third to sixth day; the discharge ceases on the fifth to tenth day. After the gonococci are no longer found in the discharge, it is still necessary, in order to reach those germs which are in the lymph spaces of the mucous membrane, to continue the irrigations for three days, when, if the discharge is not stopped, it is advisable to use some mild astringent (as nitrate of silver, gr. ¼ to ℥ j) with an ordinary urethral syringe.

Epididymitis can often be anticipated by the premonitory pain and soreness along the course of the vas deferens. If the painful area be thoroughly, but lightly, touched with the thermo-cautery, the pain will cease, and perhaps the progress of the inflammation along the course of the lymphatics will be arrested. When the epididymis is involved, applications of the cautery will cause the pain immediately to subside. It is necessary, however, that the point should not be heated beyond a dull red, and that the testicle be quickly and lightly touched, producing a a general blush as from a sinapism. In several instances where this has apparently failed to give relief a small hydrocele was found, and when this was emptied with a hypodermic syringe, the pain would disappear. After the use of the cautery, a thick poultice of iodoform ointment, 1 to 6, will materially shorten the course of the inflammation.

Rheumatic complications are among the most obstinate, frequently taking months to effect a cure. A hypodermic injection of bichloride solution, 1 to 10,000, down to the bone, will yield at times satisfactory results, a preliminary injection of cocaine being given.

Cystitis is treated with mild antiseptics; a saturated solution of boric acid in water is preferred.

Cases of so-called gleet frequently grow worse after a sound has been introduced. When benefit is derived from the sound, the discharge is usually prostatic, contains no gonococci, and is attended by a swollen, slightly tender prostate. The passage of a sound does no good, and frequently does much harm, so long as the micro-organisms are demonstrable in the discharge. If the discharge is fibro-plastic, adheres tenaciously and forms a coating on the mucous membrane, and contains gonococci, it must first be irrigated with some warm solution, boric acid preferred, in order to dissolve off the tenacious secretion, and can then be cured by the bichloride irrigations.

In some cases of long standing, after urination and in the morning a drop or two of thick pus will present itself at the meatus. Endoscopic examination will often show the fossa navicularis, or some of the sinuses in its neighborhood, to be the seat of trouble. Manipulate the urethra externally at this point, when generally a drop of thick pus can be made to exude, leaving a surface upon which the bichloride solution can be effectively used.

Health Resorts.—The Pennsylvania Railroad stretches from the Atlantic to the Mississippi, from the great lakes of the North to the Potomac; it reaches every variety of temperature and climate in the limits of the temperate zone, from the dry and rarified air of the mountains of western Pennsylvania and New York to the mild winter temperature of Cape May Point. *The Times*, Philadelphia, March 13, gives four large illustrations showing Cresson Springs, Cambria Co., Penn., on the summit of the Alleghenies, 2,300 feet above sea-level; Watkins Glen, Schuyler Co., N. Y.; Spring Lake, ten miles from Long Branch, N. J.; and Cape May.

We have a single criticism. These views and their descriptive reading matter are *not good as passes* over any part of the Pennsylvania Railroad.—*Ed. Albany Medical Annals.*

SACCHARINI.—Prof. Maurice Perkins, of Union College, Schenectady, sends us the following excerpt regarding "saccharini":

A substance which has been for some few years known to specialists bids fair, through later improvements, to be furnished so cheaply that it will enter the market as a commercial product.

From coal tar C. Fahlbery has made a substance possessing great sweetening powers—far more intense than the best cane sugar. The name given to it by the discoverer is "saccharini." It is benzol sulphionic imide (C_6H_4 CO SO.NH), a white powder, not very soluble in water, but easily in alcohol. One part will impart a very sweet taste to 10,000 of water. It is about 230 times sweeter than the best cane sugar. It is not decomposed in the human body, but is eliminated without undergoing any change. When taken into the system in such quantities as to display its sweetening properties, it has no injurious effects whatever. Five grammes a day given to dogs produced no ill effects. This would be equal to two and a quarter pounds of sugar—a far greater quantity than any one would be likely to take in one day. Diabetic patients have now been treated for several months in one of the principal hospitals in Berlin without suffering any inconvenience, thus allowing diabetic patients to enjoy food that has heretofore been denied them. It may be applied to medicinal preparations where sugar is not permissible. A little added to glucose imparts to it all the sweetness of cane sugar—say one part in 1,000–2,000. Raspberry syrup is made with this as the sweetening principle.

THE ANTIPHLOGISTIC ACTION OF MENTHOL.*—Dr. Selwyn A. Russell, of Albany, N. Y. [A. M. C., '77], writes to the *Medical Record*, November 21, 1885, to call attention to the use of menthol as an antiphlogistic and anodyne remedy in superficial inflammations, in which, he says, its effects are truly remarkable. "My discovery of its value in such conditions was quite accidental; a patient who was suffering from acute aural perichondritis, failing to obtain relief from the usual anodyne applications, bethought himself of menthol, which he applied by means of the ordinary pencil; the relief from pain was immediate, and from that time, to my surprise, the inflammation quickly subsided. I have since made frequent use of it and I believe inflammations have aborted which, without it, would have ended in abscess; and in addition the pain, itching, heat and swelling have been considerably reduced. I have used the ethereal solution (alcohol is also a good solvent) in the strength of from ten to fifty per cent., applying it by means of a camel's-hair pencil. The applications may be made two or three times a day, or more or less frequently according to the indications. A solution in one of the fixed oils may be used on mucous membranes. I have observed the good effects of menthol more especially in boils, carbuncles, excessive inflammation following vaccination, etc. The employment of this substance in superficial neuralgias, for its anodyne effect alone, is often very satisfactory, but its use in this way has been noticed and written upon by others."—*Therapeutic Gazette*, January, 1886.

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* Portion of a paper read before the Medical Society of the County of Albany, Wednesday evening, January 13, 1886.

FAITH CURE, and the "ethical nature of disease," are well ventilated in *The Medical Record*, March 27, by Dr. James Hendrie Lloyd, of Philadelphia. Some wonderful cures are shown to be cases of hysteria; a remarkable faith cure of fracture ceases to be so when the facts are known. Captain R. Kelso Carter, when questioned as to his recovery from "fatal heart disease," writes: "Doubtless some healed ones would innocently submit to a medical examination. I would not, believing it to be dishonoring to my great Physician. I give my testimony, and I say Jesus cured me. I do not propose to submit to tests to endorse God's notes of promise by the signature of men." Said one good woman, "You cannot understand these things, because they are spiritual, and you do not believe"—as though the alleged healing was not materialistic enough to be looked after.

TYPHOID FEVER; DEATH AFTER EIGHT MONTHS.—Autopsy revealed ulcers of the ileum, all pelvic organs firmly adherent, cystic degeneration of both ovaries, left kidney of great size, like large white kidney, right kidney riddled with cysts and its suprarenal capsule of great size as in Addison's disease.—*Mr. Lockwood, in Medical Press*, March 17, 1886.

LABOR troubles have not yet developed in Spain, but are expected this month. The question is whether there is to be a boy-cot(t) in the royal palace.

BUTTER VS. OLEO.—In pursuance of the line of action chosen at the Pittsburgh convention, Mr. George M. Sterne, president of the National Butterine and Oleomargarine Association, visited Washington for the purpose of watching the course of the proposed legislation against oleo products. On March 2 the Agricultural Committee, of which General Hatch, a sturdy opponent of butter substitutes, is chairman, met and considered the Hopkins bill.

Mr. Sterne's speech was as follows:

Gentlemen of the Commiteee:

The bills before you for consideration are drafted, presented, and their passage urged for the apparent purpose of hindering and obstructing the manufacture of oleomargarine and butterine—healthy articles of food, and such as are in constant use.

In Section 2 of bill 5720, it specifies that the color shall be white or pink, neither of which colors is obtainable without the use of some substance injurious to health; as, for instance, to make it white, we must either paint or whitewash it; or, to make it pink, we must use some dye-stuff, the natural color of either oleomargarine or butterine being either a pale or a deep yellow. The author of this bill does not, nor can he truthfully, state that the products oleomargarine or butterine, as made and sold, are in the slightest degree deleterious or injurious to health. Four years ago, before a sub-committee of Congress, it was contended that a law should be enacted to protect the health of the public, by seeing to it that none but healthy and pure materials were used, and in this bill the health section has entirely disappeared; possibly because the author cares less for the public health than the author of the former bill, but really because these products have been proven to be perfectly healthy and nutritious and entitled to take a position side by side with butter in the household.

In all the researches of chemistry and science no atom of any thing unhealthful has been discovered in these products, and it requires the latest and most improved appliances in science to find any difference between the butter and oleomargarine in their construction; and even then it is a question, for at once some equally learned man decides that the difference is not discernable by the same processes, and it is drawing the line very fine when it depends upon finding a St. George's cross in an atom of fat, treated to an addition of senelite, under a powerful microscope, to determine whether it is butter or oleomargarine.

These products are made from the purest and the best of materials. In the manufacture of oleomargarine, the finest fat from the beef is taken and treated to a bath of tepid water, then cold water, then hashed by machinery and melted at a temperature of 150 to 160 degrees, then pressed and the stearine separated from the oleine. Then it is treated to a bath of cold brine for about seventy-two hours, when it is ready for the churn. In churning, we use about forty gallons of milk to the ton of finished product. From the churn the process is identical with the manufacture of butter. The process of making the neutral lard is almost identical with that of oleo.

That it is a wholesome food product has been attested by as high an authority as S. W. Johnson, of the Scientific School of Yale College, who said of it: "A product that is entirely attractive and wholesome as food, and one that is, for all ordinary and culinary purposes, the equivalent of good butter made from cream."

Charles P. Williams, analytical chemist, of Philadelphia, said of it: "It is a pure and wholesome article of food, and in this respect, as well as in respect to its chemical composition, fully the equivalent of the best dairy butter."

Henry A. Mott, analytical chemist, of New York, said it was "essentially identical with butter made from cream—a perfectly pure and wholesome article of food"

Any injurious ingredients which the cow may eat, or which may linger in the system as the result of any ailments or disease, are thrown out of the secretory glands, of which the principal ones are the kidneys and the milk-secreting organs. In this way the milk becomes impure, while the impurities are never deposited in the fat, for such is the admirable economy of organic life that the various places where carbonaceous compounds are stored up (the adipose tissues, which are the storehouse of fat) are not reached by the injurious substances which, in the course of the circulation of the blood, are eliminated by the proper glands. Hence the fat will remain pure, which cannot always be said of the milk.

Butter substitutes have driven out of the markets the various dairy products which, through unskillful manipulation, the mixture of cream of different ages, or perhaps cream which has been vitiated by bad physical condition of the cow, soon become unfit for use.

Every chemist knows that the cause of the undesirable qualities of dairy butter is due to decomposition—a polite name for putrefaction—a condition which makes butter unfit for human consumption. Professors Leffman and Jordon stated before the Pennsylvania Board of Agriculture that "the fats of the tallow (beef oil) and lard are, to a large extent, the same as butter, and are as healthful and nutritious."

At the different slaughtering points all the butter-fat taken from the cattle goes into the production of oleo oil, which is the principal ingredient used in the manufacture of butterine and oleomargarine. The price obtained for this oil from the butterine and oleomargarine manufacturers enables packers and others who prepare the oil to pay a higher price for cattle than they could if they did not have this outlet for the best fat. The fact that while there is a demand for these goods the value of cattle will be enhanced $1.50 to $3.50 per head is of itself a strong argument in favor of encouragement of an industry which puts on the market, at a reasonable price, a highly nutritious and valuable article of food, all reports from so-called dairy interests to the contrary notwithstanding. As an evidence of the importance of this oleo oil trade, we would state that during the last twelve months the quantity of oleo oil produced for, and used by, the butterine manufacturers reached the enormous amount of fifty million pounds, valued roughly at seven and one-half millions of dollars. Any legislation tending to prohibit the manufacture or sale of oleomargarine immediately affects this oleo oil trade, and would be followed by a decrease in the value of every head of cattle in the states. * *

Another most important argument in favor of oleomargarine and butterine is the cleanliness observed in the manufacture. It is well known that in establishments where the most improved machinery is in operation the particular arrangements in regard to matters of that kind are scrupulously followed out. * *

Several years ago it was almost universally the rule that in first class restaurants, and even hotels, much objection could be had to the butter, and the poorer classes were obliged to eat poor butter or none, or pay a very high price for a good quality. * *

The danger to the industry sought to be protected, namely, the dairy, cannot be so great as the author of this bill would lead you to believe, for I have here a statement made on February 1 of this year by the secretary of the National Butter, Cheese and Egg Association, and sent to the members of Congress, that the output of the dairy is $565,000,000 annually, and that of oleomargarine and butterine $7,500,000, or one-seventh of the dairy output. Yet he says the dairy is threatened with destruction. * *

Oleomargarine does not compete with any butter which dairymen ought to be encouraged to make. The extraordinary rates at which butter of an improved quality is now selling proves this. Again, oleomargarine tends to promote public health. It is notorious that it takes the place of inferior butter which is in some way defective. Sound oleomargarine is more conducive to health than the unsound butter with which it competes. Its manufacture, therefore, is to be encouraged rather than repressed. * *—*The New York Produce Exchange Bulletin*, March 13, 1886.

THE NEW YORK SKIN AND CANCER HOSPITAL has just issued its third annual catalogue. From this it appears that it has treated more than 3,000 patients, over a thousand during the year. About 100 of these were cases of cancer. Besides a city hospital building in East 34th street, it has, during the year, completed a country branch at Fordham Heights, where cottage pavilions have been built, and thus afford the most satisfactory sanitary surroundings, not so far away as to be beyond the care of the admirable metropolitan staff of medical officers. It is intended for the care of the poor afflicted with skin diseases and cancer, and is a most worthy and needed institution, especially as there are few of its special character in the country.

ALBANY MEDICAL ANNALS:

A Journal of the Medical Society of the County of Albany.

EDITORIAL COMMITTEE:

F. C. CURTIS, M.D., A. VANDER VEER, M.D., LORENZO HALE, M.D.,
JNO. BEN. STONEHOUSE, M.D., WILLIS G. TUCKER, M.D.

Vol. VII. APRIL, 1886. No. 4.

BOOK NOTICES.

A MANUAL OF MICROSCOPICAL TECHNOLOGY FOR USE IN THE INVESTIGATIONS OF MEDICINE AND PATHOLOGICAL ANATOMY. By Dr. Carl Friedlaender. Translated by Stephen Yates Howell, M.A., M.D., Buffalo, N. Y. New York and London: G. P. Putnam's Sons. 1885. Pp. vi., 249.

This most excellent manual, also published from another translation, by another firm, is one of the most concise and yet one of the clearest and most satisfactory hand-books of microscopical *technique* with which we are acquainted. Of the two translations the one before us is, we think, to be preferred, since considerable new and useful matter has been added by the translator, and the value of the book materially enhanced thereby. The object of the work is to describe the methods employed in microscopical investigations of a diagnostic or pathological nature. Improved methods of microscopical manipulation have greatly added to our pathological knowledge, and he who desires to keep pace with the advances in this department of medicine, no less than he who makes use of the microscope professionally, must master the newer technological methods. To all such this little book will be a real help, for though modest in appearance, it is far from elementary in its nature.

The instrument, utensils employed and reagents used are first considered, and to this part the translator has added a list of American and foreign manufacturers, including the descriptions and prices of their latest complete student microscopes. Then follow chapters on staining and the agents employed, the demonstration and staining of bacteria, and an added section on the comma bacillus of Asiatic cholera, which treats of the morphology, cultivation and examination of this microbe, and is of great interest and value. The fifth chapter deals with the study of the circulation and of inflammation, as observed chiefly in the living tissues of the frog, and the succeeding chapter treats of the examination of fluids, the blood, sputum, etc., with a description of Koch's method of staining dried preparations, and a discussion of the significance of the tubercle bacillus. The last chapter deals with the examination of the solid tissues of the body, including extirpated tumors, etc. Foot-notes have been added by the translator, wherever necessary to make clearer the text, and in them will be found many valuable explanations, references and suggestions. The book is well printed and neatly bound, and lacks only an index to make it complete. W. G. T.

A Manual of Diseases of the Skin. By Balmanno Squire, M.B., London. A. N. Marquis & Co., Chicago. 16mo, 194 pp., $1.00.

Another little volume comes to us on skin diseases, this time from an Englishman, and a man of repute in the specialty. The author aims to provide a text-book of small size and a comprehensive handy-book for the practitioner. It really will prove unsatisfactory to both classes, except it be taken as a reminder of knowledge already possessed, in which case it will be found to have advantages. It is simple in its construction, and the information sought may be readily turned to; the language is not technical, and considerable attention is given to diagnosis. But it is quite impossible to pare down so large a department of medical science into such narrow limits; there is of necessity a disproportion in space given to different topics, as allowing nearly three pages to vitiligo, while eczema has but eight. The author, as an Englishman, presents the subject in a way to which we have become unaccustomed since our native school has grown up; it is a novelty, almost refreshing, to see the classification of Willan once more, than which none is more arbitrary, and much of the nomenclature of the past is brought up again here. But for those who desire a very little book on skin diseases this will be found to be satisfactory, not in size only, but in much that is desirable in the contents of the volume, and all of us can find enough new suggestions to make it worth having. But it seems to us time that the medical profession exhibited a demand for something more of the publishers than they can by any possibility squeeze into these little compends.

F. C. C.

A GUIDE TO AMERICAN MEDICAL STUDENTS IN EUROPE. By Henry Hun, M.D., Professor of Diseases of the Nervous System in the Albany Medical College. 151 pp., duodecimo. William Wood & Co., 56 and 58 Lafayette Place, New York.

The majority of students go abroad to perfect themselves in certain special branches. From this guide they will obtain definite information in regard to such courses and the advantages offered by the different universities. The methods of study are correctly portrayed. The chapters on Vienna and Berlin are especially well written.

"Every year a large number of Americans go to Europe to complete their medical studies. Unfortunately the majority of these students have very little definite information about the different universities or about the way in which medicine is taught abroad, and on this account they lose much valuable time in getting to work. The object of this book is to furnish this information, and to give some assistance to the student, at the outset of his foreign study, which is the time that he stands most in need of aid; and it is to be hoped that the book may also be of some interest to medical men in this country who wish to know how medicine is taught in Europe, although in order that the Guide might be of such a size as to be of real use to the student, it was necessary to omit much which might be of use to the general practitioner. For a large part of the information in the book I am indebted to the kindness of many friends."—*Author's Preface.*

Contents: *Preliminary* (Journey, Language, etc.). *Austria:* Vienna, Prague. *Germany:* Dresden, Berlin (Matriculation), Leipzig, Heidelberg, Strasbourg, Bonn, Breslau, Erlangen, Freiburg, Giessen, Göttingen, Greifswald, Halle, Jena, Kiel, Königsberg, Marburg, Munich, Rostock, Tübingen, Würzburg. *Examination and Graduation. Switzerland:* Basel, Bern, Zurich. *France:* Paris. *England:* London, Dublin. *Appendix* (noting recent changes in instructors, etc. E. F. B., AMSTERDAM, N. Y.

THE ADIRONDACKS AS A HEALTH RESORT, showing the benefit to be derived by a sojourn in the wilderness, in cases of pulmonary phthisis, acute and chronic bronchitis, asthma, "hay fever," and various nervous affections. 200 pages, 16mo. Edited and compiled by Joseph W. Stickler, M.S., M.D., visiting physician and pathologist to the Orange Memorial Hospital, member of New York Pathological Society, etc., etc. New York and London: G. P. Putnam's Sons. 1886.

Thirty-seven contributors are named, including Alfred L. Loomis, M.D., LL.D., New York, S. B. Ward, M.D., Albany, N. Y., and other prominent men.

REPRINTS, PAMPHLETS, ETC.

The Poultry Monthly. Published by the Ferris Publishing Co., 481 Broadway, Albany, N. Y. $1.25 a year. The April number fully sustains the well-deserved good reputation of this entertaining and valuable journal. Its illustrations are superb, and its discussions are instructive to everybody. Only 75 cents a year, in advance, to subscribers to the ALBANY MEDICAL ANNALS.

A very handsome set of "Views of Hartford," in which, by means of some of the photo-lithographic processes, an unusually happy effect is produced, has just been issued by the Travelers Life Insurance Company. We are indebted for this attractive album to Dr. William J. Lewis, consulting surgeon for the company, once a resident of Albany and a member of this society.

Journal of Cutaneous and Venereal Diseases Monthly, $2.50 a year. Edited by Prince A. Morrow, A.M., M.D. New York: Wm. Wood & Co., 56 and 58 Lafayette Place. Dr. Piffard has retired from editorial connection with this journal, which, during the three years of its existence, has held a high rank for scientific and practical value. It is the only serial publication on its specialty in the English language.

Quarterly Bulletin of the Clinical Society of the New York Post-Graduate Medical School and Hospital. Vol. I., No. 3. Edited by the executive committee: Seneca D. Powell, M.D., Thomas E. Satterthwaite, M.D., W. Oliver Moore, M.D., Charles Henry Brown, M.D., Samuel Lloyd, M.D. Editorial rooms, 226 East 20th street, New York. $2.00 a year.

The American Lancet (formerly *Detroit Lancet*). Leartus Connor, A.M., M.D., editor. One of the four medical journals published by George S. Davis, Detroit, Mich.; the others being *The Therapeutic Gazette*, *The Index Medicus*, and *The Medical Age*. *The American Lancet* has 40 double column small 4to pages, monthly. Price reduced from $3.00 to $2.00.

The *Amerìean Practitioner* and the *Louisville Medical News* are consolidated in a bi-weekly, under the name of the *American Practitioner and News*, The editors of the old journals named, D. W. Yandell and H. A. Cottell. have charge of the coming journal. Louisville, Ky.

The Medical Analectic; A Monthly Periscopic Summary of the Progress of Medical Science. Edited by R. W. Amidon, A.M., M.D. The *Analectic* is handsomely printed in double column, octavo form. $2.50, in advance. Physicians forming a club or society will receive five copies of the *Analectic*, to one address, for $10.00. G. P. Putnam's Sons, publishers, 27 and 29 West 23d street, New York, and 27 King William street, Strand, London.

Northwestern Lancet. Charles B. Witherle, M.D., editor. St. Paul, Minn. Double-column 8vo, 20 pp., semi-monthly, $1.00 a year.

"An Experimental and Clinical Study of Air-Embolism." By N. Senn, M.D., of Milwaukee, Wis., Attending Surgeon to the Milwaukee Hospital; Professor of the Principles and Practice of Surgery and Clinical Surgery in the College of Physicians and Surgeons, Chicago, Ill. Extracted from the transactions of the American Surgical Association, Vol. III., 1885. Collins, printer, Philadelphia.

"Abnormal Positions of the Head—What do they Indicate?" By Edward Borck, A.M., M.D., Professor of Surgery, etc. Reprint from *Medical and Surgical Reporter*, Philadelphia, January 31, 1885, together with the lecture on "Little Things," a farewell by Edward Borck to his private class of medical practitioners, from *New England Medical Monthly*. Reprinted in St. Louis, Mo.

"Tetanus." Lecture delivered at the College of Physicians and Surgeons, Chicago, by N. Senn, M.D., Milwaukee, Wis., Surgeon to Milwaukee Hospital, Professor of Principles and Practice of Surgery and Clinical Surgery.

The Herald of Health. 20 octavo pages of reading matter, monthly, $1.00 a year. M. L. Holbrook, M.D., publisher, 13 and 15 Laight street, New York.

Central Tennessee College Record, Nashville, Tenn. Central Tennessee College embraces the Meharry Medical Department, a Theological, a Law and an Industrial Department.

Man, a popular journal of mental and physical culture. Edward Playter, M.D., editor, Ottawa, Canada. 30 pp., 8vo, $1.50 a year in advance; $2.00 when not so paid.

"Fracture of the Coracoid Process," by J. Wellington Byers, M.D., Charlotte, N. C.

"What is Medicine?" Annual Address, American Academy of Medicine, New York, October 28, 1885, by Albert L. Gihon, A.M., M.D., Medical Director, U. S. Navy, President of the Academy.

"Catarrh of the Upper Air Tract, especially in its Effects on the Ear, with Suggestions as to Treatment, both Hygienic and Medical." By Samuel Sexton, M.D., Aural Surgeon to the New York Eye and Ear Infirmary. Reprinted from *The Medical Record*, January 30, 1886. New York: J. H. Vail & Co. 1886.

"On the Necessity of Organization of the Medical Profession." By F. E. Daniel, M.D., Austin, Texas. Reprint from *The Medical Bulletin*, Philadelphia, February, 1886.

"Practical Hints about Sympathetic Diseases of the Eye." By C. A. Bucklin, M.D., New York. Reprint from *Medical Record*.

"Vick's Floral Guide," Rochester, N.Y., with its thousand illustrations, is worth much more than the ten cents asked for it, and that price is deducted from the price of the first order for seeds.

American Public Health Association. Preliminary circular of fourteenth annual meeting, Toronto, Ont., October 5–8, 1886. Dr. Henry P. Walcott, Cambridge, Mass., president; Dr. Irving A. Watson, Concord, N. H., secretary.

"The Bromides: Their Physiological Action, Therapeutical and Toxic Effects, Alone and in Combination." By William B. Hazard, M.D., St. Louis. Reprint from *Gaillard's Medical Journal.*

"Piper Methysticum (Kavakava)." A lecture before the Berlin Medical Society, by Dr. L. Lewin, Docent. Translated from *Berliner Klinische Wochenschrift*. Published by Scientific Department of Parke, Davis & Co., Detroit, Mich., and New York.

"Esthetics of Medicine." The Doctorate Address, Medical Department, University of Louisville, 1886. By H. A. Cottell, M.D., Professor of Medical Chemistry and Microscopy.

PERSONALS.

—Dr. T. Gaillard Thomas has removed from 294 Fifth avenue, New York, to 600 Madison avenue, between Fifty-seventh and Fifty-eighth streets.

—Dr. Theobald Smith (Albany Medical College, '83) contributes to *The American Monthly Microscopical Journal*, Washington, D. C., April, 1886, a paper entitled "Notes on Biological Examination of Water, with a Few Statistics of Potomac Drinking Water," being an abstract of a communication presented to the Biological Society of Washington, March 20, 1886; also an editorial in the same journal on "Investigations of Microbes."

—Dr. Adelbert E. Moody (A. M. C., '85), of Saranac Lake, has located at Mooers, and has opened an office over P. F. Churchill's store.

—The Albany County Pharmaceutical Association have chosen these officers: President, P. M. Murphy, M.D.; vice-president, Theodore J. Lewi; secretary, G. R. Cardwell; treasurer, L. Sautter, Jr.; executive committee, Joseph Bandorf, James H. Miller, A. B. Huested, M.D., G. E. Ferguson, M. W. Macomber.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY.

Abstract of the Minutes of the Stated Meeting of March 31, 1886.

A stated meeting of the Medical Society of the County of Albany was held in Alumni Hall, Albany Medical College, Wednesday evening, March 31, 1886.

Present: President B. U. Steenberg and Drs. T. P. Bailey, H. Bendell, J. P. Boyd, H. S. Case, R. D. Clark, F. L. Classen, D. H. Cook, John D. Cooper, Joseph D. Craig, W. H. Craig, Mary DuBois, S. H. Freeman, Lorenzo Hale, J. H. Mitchell, F. D. Morrill, S. R. Morrow, G. S. Munson, P. M. Murphy, T. W. Nellis, D. V. O'Leary, W. L. Schutter, W. O. Stillman, John Thompson, Franklin Townsend, Jr., Gebhard L. Ullman, T. F. C. Van Allen, Albert Vander Veer and S. B. Ward; also medical students and other visitors.

The President called the meeting to order and said: Before proceeding further upon the business of the evening it seems to me eminently proper that we pause for a few moments, that we may as a body take cognizance of the fact that since our last meeting one who has so often labored here with us has been called into eternity. Though not at the time of his death a member of this Society, nor a resident of this city, his name appears upon our list for many years as an active member, and his last public act was a demonstration to us of his deep interest in the welfare of our medical college and its Alumni Association. * * It is not, perhaps, customary for this Society to take any action in cases of this kind, but I believe that we are at this time fully justified in giving brief expression to our feelings of admiration for the man and our sorrow at the death of Dr. S. Oakley Vander Poel.

Dr. S. H. **Freeman** moved the appointment of a committee to prepare an appropriate expression for the Society in memory of Dr. Vander Poel.

The President appointed as such committee Drs. S. H. Freeman, D. V. O'Leary, P. M. Murphy, William H. Craig and H. Bendell.

Dr. Lorenzo Hale was called upon to act as Secretary *pro tem.*

The committee retired and, upon returning, Dr. S. H. Freeman, after preliminary remarks, offered the following from the committee:

Having learned with profound sorrow of the death of Dr. Samuel Oakley Vander Poel, a former president and for many years an active and honored member of this Society, we put on record our appreciation of the integrity of his character and rare grace and culture, and we recognize in his death a sad bereavement to our profession.

The Secretary is requested to transmit to his family the expression of our sincere sympathy and condolence.

On motion the report of the committee was adopted.

Dr. P. M. **Murphy** said: My acquaintance with Dr. Vander Poel began in 1861 as a student in his office. There was a friendship then formed that was terminated only by his death. One peculiarity marked the character of the doctor—he was as steadfast in his friendship as he was unswerving in his duty. * *

Dr. **William H. Craig** said: Dr. Vander Poel was only a few years my senior in the practice of medicine, and it was my good fortune to make his acquaintance almost at the very beginning of my professional career. I speak, therefore, from personal knowledge when I say that few physicians will be so much missed from the councils of the profession as our friend.

Dr. Vander Poel was identified for many years with the progress and development of medical science in this city. As as a professional associate he was always found kind and affable in manner. His readiness and accuracy in the diagnosis of disease were almost intuitive. * *

By the death of Dr. Vander Poel the medical profession has lost a scholarly, able and distinguished member, his family a kind, indulgent and loving father, science an earnest, zealous and devoted worker, and society a warm-hearted, public-spirited and high-minded citizen.

Dr. D. V. **O'Leary** said: I had the good fortune to spend part of my student days in the office of Dr. Vander Poel, and, like others who enjoyed even a slight acquaintance with him, was much impressed with his great skill and his nobility of character. To my mind he represents the highest type of intellectual manhood, and, even without education, his native endowments would have made him a leader of men. At the time of which I speak he was located on the corner of North Pearl and Steuben streets, and his services were sought by the wealth of this city, as well as by many from neighboring towns, and yet he always found time to devote to those who had gained his friendship in the early days of his practice, but were now unable to render any money compensation for his time. * * His office was the resort of the most distinguished men of the city and state, who dropped in after the evening office hours to discuss the topics of the day, and nothing could demonstrate the perfect tranquility of his domestic life better than the fact that some of his family were almost always present at those gatherings. His death was sudden and perhaps unexpected, but if in the hereafter our reward or punishment shall depend upon the good or evil done in this life, it cannot be said that he was not prepared.

Dr. F. Townsend, Jr., said: The prime elements of Dr. Vander Poel's character—those which must have impressed all who enjoyed the honor of knowing him—were his eager, restless, indomitable energy, which never tired, as well as his determined will or purpose. It was always the same ever-pressing, unswerving, energetic will; and this, coupled with his large experience of men and things, beside his strong mental endowments, bespoke him immediately as an exceptionally powerful man. * * With his mental disposition, he sought for *reason* in every thing that claimed his consideration. He had also that indefatigable industry which is a "bar to force with groaning labor the stubborn lock of learning." Let the examples of such men—the fathers of our profession—as they pass away, be ever cherished, to inspire the timid and encourage the faltering.

Dr. John Thompson: It is eighteen years since at the house of our friend, Dr. Craig, I first met Dr. Vander Poel. * * I can speak of his gentlemanly conduct toward those whom he met in consultation. On several occasions we met quite intimately, and his manliness and nobility were shown by the fact that when he discovered that he had made a mistake he had the frankness to acknowledge it.

Letters were received from Dr. Joseph Lewi and from Dr. R. H. Sabin expressing the highest regard for the accomplishments and virtues of Dr. Vander Poel, and regret for being unable to participate in the action of the Society on his death.

Dr. F. L. Classen then read a paper on "The Contagiousness of Phthisis and the Treatment of the Disease by Pneumatic Differentiation"

Discussed by Drs. Clark, Ward, Townsend, Vander Veer and Stillman.

Dr. W. O. Stillman then read a paper on "Therapeutic Notes on New Remedies."

Discussed by Dr. Vander Veer.

Society adjourned. Lorenzo Hale, *Secretary pro tem.*

ALBANY
MEDICAL ANNALS:
A Journal of the Medical Society of the County of Albany.

Vol. VII. MAY, 1886. No. 5.

ACCOUCHEMENT OF A TURKISH PRINCESS.

BY J. A. S. GRANT, M.D., C.M.

[EXTRACT FROM A PRIVATE LETTER, BY PERMISSION.]

CAIRO, EGYPT, *July* 7, 1885.

Dear Doctor:

* * * * * * *

Wonders will never cease. I was called the other day to conduct the accouchement of a Turkish Princess. It was her second confinement. She had heard that I gave chloroform and she wished to have it administered to her, so I was sent for when the pains commenced. Her Highness had got a French nurse, so as to have the whole thing conducted on European principles. I was ushered into her presence by the Pasha, her husband, the eunuchs stopping short at the bed-room door.

The Princess was unveiled and lying on a mattress on the floor, being fanned by two Circassian slaves who were seated on the floor at the Princess' head.

The Princess speaks French fluently, so we communicated in that language rather than Arabic, as I am ignorant of Turkish. I was not entirely a stranger to her, as I had superintended her taking gas some months ago when she was having a tooth extracted by her dentist.

I told her that it was very inconvenient for me to have her so low down, so she got up and walked into another room where there was a bedstead, and in a few minutes I was told to come in. The pains were coming on about every ten minutes, but not severe and not forcing pains. She inhaled the chloroform in right good earnest, so that three or four inspirations were sufficient for each pain. Between pains she smoked cigarettes and talked. By and by the Pasha brought in Dr. Fauzy Bey, one of the native surgeons at the Government Hospital. It seems the Princess had seen him some time ago and asked him if he knew any thing about giving chloroform in confinement cases, and, on his admitting his ignorance, she told him that when she was confined it would be done under chloroform, and she invited him to come and see how it was done.

He remained with me, therefore, till the accouchement was finished, and even had the hardihood to give the Princess the last few whiffs of chloroform while I was supporting the perineum and conducting the child into the world.

The Princess was so thoroughly under the influence of the anæsthetic that she did not know when the child was delivered. Every thing came off gloriously, and the child was a boy—a great consideration in the eyes of a Turk. I was with her six hours. As my custom is, I gave a teaspoonful of ext. ergotæ liq. when the head was well down. It is now the fourth day since the event, and there has been no untoward symptom. She had no milk at her last confinement and will have none now. There was a rise of about 2° F. after the accouchement, but that lasted only a short time. The lochia offered to stop entirely yesterday, so she has been up and about to-day, and brought it on again slightly. Altogether it is a most favorable case for introducing chloroform and medical men into the harems generally for confinements.

Both the bandaging of the mother and the dressing of the baby seemed to be something quite new to them.

Novel Liver Surgery (*Med. Press*).—In a case of acute hepatitis with enlarged liver, ascites, and other symptoms pointing to a fatal termination, Dr. George Harley introduced a trocar and cannula into the liver and drew off twenty ounces of blood. The patient made a good recovery. Dr. Harley thinks hepatic phlebotomy is destined to take rank in therapeutics as a safe and effective measure.

ON THE CONTAGIOUSNESS OF PHTHISIS AND THE TREATMENT OF THE DISEASE BY PNEUMATIC DIFFERENTIATION.*

BY FRED'K L. CLASSEN, M.D., ALBANY.
(ALBANY MEDICAL COLLEGE, 1881.)

I will occupy the attention of the society by a few remarks upon the contagiousness of phthisis, in which the essential etiological agent is the bacillus tuberculosis of Koch, but will dwell principally upon the treatment. I use the word "contagious" in its broadest sense, as synonymous with communicable, transmissible, "catching." Prior to Koch, it had been placed beyond a doubt that phthisis was communicable, but it was the aim of the Berlin physician to see what the precise character of the contagium was, and that he was successful is well known to us all. A number of pathologists, since the publication of Koch's paper, have devoted themselves to various parts of the question of the relationship of the tubercle bacilli to the tuberculous process, and have, with few exceptions, verified Koch's experiments.

Dr. Watson Cheyne, of London, confirmed Koch. On the other hand, Touissaint, Klebs and Schüller differ with Koch, and say that tuberculosis is due to a micro-organism which is a micrococcus, and not a bacillus. Dr. Watson Cheyne examined the tuberculous organs of animals experimented upon by Touissaint, and found the bacillus of Koch, but no micrococci, although some of the animals developed tuberculosis as a result of inoculation, by Touissaint, with cultures of the micrococcus described by him. The positive results obtained by Touissaint and other experimenters may be explained on the supposition that tubercle bacilli, or their spores, have been introduced at the same time.

The examination of sputum for bacilli has been a matter of daily practical application, and when these have been found we have had to deal with real tuberculosis. The sputum is an important source of contagion; the expectorated matter is highly infective; not even drying destroys its virulence, so that by inhaling the air in which are the particles of dried sputa we are in danger of contracting the disease. Some of the other sources are sleeping in the same room with consumptives or being in too close contact with or constant attendance upon them, and the ingestion of milk from animals afflicted with tuberculosis.

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* Read before the Medical Society of the County of Albany, Wednesday evening, March 31, 1886.

Dr. R. D. Clark, of our city, in his report for the year 1885 to the dairy commissioner, relates cases showing that the inoculation and ingestion of milk from animals afflicted with tuberculosis produce the disease. How often do we notice the apparent cases of contagion from wife to husband, husband to wife, friend to friend. Cases are known where the disease has been communicated to infants by means of nurses and midwives.

As illustrating this, we have an example in a case reported by Reich: "The only two midwives practicing at Nuremberg, a healthy little town of 1,300 inhabitants in 1875, were R. and S. Of these, the woman S. was undoubtedly the subject of phthisis, with abundant puriform expectoration. In the first case described, Dr. Reich extracted the child by turning. While his attention was engaged with the mother, he noticed that, owing to some difficulty in the child's breathing, the nurse sucked the mucus from the infant's mouth, and also endeavored to promote respiration by blowing into its mouth. For the first three weeks the child progressed well, but then its health failed, and within three months of its birth it died of well-marked tubercular meningitis, initiated by symptoms of bronchial catarrh. In May and June following, two more children died of the same disease. These three cases had been attended by the nurse S. Dr. Reich's attention being thus attracted, he found, on investigation, that between April 4, 1875, and May 10, 1876, seven children, in addition to the above three, had died (all within the first year) of tubercular meningitis, although in no case was there any history of hereditary tuberculosis; that all the cases had been attended by the woman S., while of all the cases attended by the other midwife, R., not one had died of this disease, nor had any manifested, in any way, indications of any tubercular form of disease. Of the ninety-two children who died in their first year, during the nine years from 1866 to 1874, only two died from tubercular meningitis; and similarly of the twelve infants who died in 1877 there was only one case, and its parents were tuberculous. The midwife S. herself died of phthisis in July, 1876. It was ascertained that S. had been frequently in the habit of sucking mucous from the mouth of infants, and also of caressing and kissing them."

Lawson Tait, F.R.C.S., of Birmingham, England, reports a case as follows: "About three years ago, there came to me a pretty, flaxen-haired, blue-eyed girl of about eighteen, whose face alone it was enough to look at to designate pulmonary consumption. She told me her mother had died of it, and so had one brother. As is the wont of woman in affliction, she brought a friend with her to help her through the ordeal of a visit, a perfect contrast to herself, tall, stout and strong, the very picture of health, a handsome Irish brunette, born near Sligo. The two worked together at one of our Yorkshire wool mills, and it would seem as if the strong contrast there was between them had caused their close friendship. They lodged together, and until their visit to me had slept together. As is my custom, I at once insisted on the patient having a room to herself, and, after my injunction, this was strictly carried out. I need not detail the case of the first girl. Suffice it is to say that she passed through several attacks of softening, during each of which she was attended carefully, but not closely, by her friend, and after these attacks she recovered completely, married, and is now the mother of two children. Her devoted friend had a different and a sadder fate; for, only five weeks after her first visit to me in the capacity of companion to my patient, she herself came with the dyspeptic symptoms which usher in the first stage of phthisis. During the time she was nursing her friend, the physical signs of incipient consumption were manifested, and, despite all my endeavors, it ran an almost unchecked course in less than three months. * * The former, whose fate I had regarded as decided, recovered; the latter, who really sacrificed herself for her friend, died. * * Her father, mother and several brothers and sisters were all alive and strong. She had a grandfather and two grandmothers alive, and no instance had occurred in the family of death from chest disease or any of the usually allied affections, nor in her own case was there any point which could be indicated as one likely explanation for the phthisis. The whole evidence, negative certainly, but none the less valuable on that account, pointed to the conclusion that it was a case of phthisis derived from contagion."

One of the greatest obstacles in the acceptance of contagion is the question of hereditary transmission, which certainly cannot be denied, but statistics show that heredity is powerless to explain more than a small portion of cases of consumption. Lebert found heredity in one-sixth of the cases investigated by him. If, therefore, hereditary transmission will explain only a small proportion of cases, it follows that the major portion must have been acquired.

Knowing the nature of this dread malady, should we not, as practitioners, study the best means of combatting and staying its ravages? I feel that we have in the Pneumatic Cabinet a means by which its mortality can be lowered.

The treatment of pulmonary difficulties by aero-therapeutics is not new. Waldenburg invented an instrument for inspiration of compressed air, and expiration into rarified air, but one of the dangers attending its use was that of hæmoptysis, caused by the maintenance of the normal atmospheric pressure upon the body. Jaccoud says: "Under the influence of this external pressure, the blood is caused to flow concentrically from the periphery of the body towards those regions where the pressure is less great, namely, towards the respiratory organs, which alone communicate with the rarified air. In consequence of this, while the artificial medium acts by attraction upon the air and pulmonary vessels, the normal air in which the person is placed acts by pressure upon the circulation of the periphery, these two conditions combining to overfill and dilate the blood vessels of the bronchial tubes and lungs." And again: "It should be observed, by anticipation, that this difference does not exist when the person lives in a rarified atmosphere, as in high climates. The pressure at the periphery being thus diminished to the same extent as that within the chest, the relation between the two is not altered. Instead of a flow of blood taking place from the periphery to the center, there is a general expansion of the blood-vessels at the periphery, and hence the pulmonary vessels are not more full of blood, nor is the danger of hemorrhage greater. Expiration into the rarified atmosphere of machines has undoubtedly a tendency to produce hemorrhage, while living in the rarified air of elevated places is completely harmless in this respect."

It was while studying the effects of altitude upon the lungs that Dr. Herbert F. Williams and Mr. Joseph Ketchum, of Brooklyn, invented the machine known as the Pneumatic Differentiator, or Pneumatic Cabinet. What is claimed for it is, first, a more thorough medication of the lungs than by any other known means; second, it prevents or controls pulmonary hemorrhage; third, it promotes ventilation and circulation in those parts of the lung that have been inactive, the direct consequence of this inaction being the formation of products of a low order, as tubercle.

A brief description of the cabinet might not be out of place here. It resembles in appearance a large iron safe, made of steel sides, bottom and top, fitted to a wrought-iron angle-frame, with a heavy glass front and a door in the rear, air-tight when closed, but capable of being opened at a moment's notice. In the lower part of this glass front is an aperature for the insertion of the breathing faucet, on the inside of which is slipped a soft-rubber tube, which the patient inserts between his lips and receives through this a spray of medicated vapor. On the right-hand side, near the top of the glass, is a manometer guage connecting with the interior of the cabinet, filled with mercury and graduated to one-tenths of an inch. On the top is a bellows, the interior capacity of which is approximately one-thirtieth of the cubic capacity of the cabinet. A valve in the interior of the bellows communicates with the interior of the cabinet. Another valve is situated on the upper side of the bellows to communicate with the outside air. When the patient is seated inside, we exhaust a portion of the air about him, causing a deep and pleasant inhalation. The decrease in the external pressure upon the body, coupled with the normal atmospheric pressure exerted internally, causes an inflation of the lungs, so that those portions of the lungs which have been inactive are forced to expand. At the same time there may be used whatever medicament (in the form of a spray) it is thought best to administer.

It may be urged that with the force at our command rupture of the lung might be produced, but it must be remembered that the force is regulated by the manometer gauge, which allows two inches to be used with safety. In the cases treated, air enough has been exhausted from the cabinet to cause the manometer guage to register one-tenth of an inch, and, by a series of treatments, gradually increased to eight-tenths of an inch, which is the maximum reached in my experience. It appears that a higher vacuum can be used with impunity, so far as the danger of rupture is concerned, since experiments have demonstrated that a full inspirtion, which precedes a cough, closes the glottis, and compression of the lungs and their contents is accomplished by the respiratory muscles; the glottis is then opened, and the compressed air escapes with a force which, when measured by a properly arranged mercurial column, shows a displacement of from four to eight inches.

Dr. Alfred S. Houghton, of Chicago, says: "Volumetric tests have shown us that by the use of the cabinet the amount of air inspired during each inspiration is increased from 50 to 100 per cent. over the amount inspired during normal tranquil respiration. This air is saturated with the medicament as already explained. Repeated and exact hygrometric and manometric tests have shown that if air is thus (unconsciously to the patient) introduced at a pressure of five-tenths of an inch, the effort to expel the same, or the expiratory movement, as well as the friction and inertia of the air passages, is equal to five inches, or an increase of 950 per cent., or a corresponding diminution of moisture in the air inhaled; against this, however, we have to consider the increase in moisture-carrying capacity due to to higher temperature in the lungs; taking this into consideration, we have between the inspiratory and expiratory movements a reduction in vapor-carrying capacity and a consequent condensation of vapor at the farthest point reached by the inspired air, and, as our volumetric measurement has shown that the entire air capacity of the lungs is occupied, the entire aerating surface must be bathed with the condensate; numerous experiments have shown this to amount to about twelve per cent. of the medicament used." By this process we also have a ready means of introducing germicides, and one calculated to diminish or obliterate the bacilli, and also to reduce the fever. Dr. Williams says: "To introduce antiseptic or germicidal air into freshly made cavities will as certainly reduce temperature as will washing out the uterus in puerperal septicæmia." Upon the question of the prevention or controlling of pulmonary hemorrhage Dr. Williams says: "We know that during ordinary inspiration the blood pressure rises in the arterial system of the body, because the blood finds less resistance in its passage through the lungs, and that during expiration the blood pressure sinks accordingly. This inspiratory effort is very much increased by the Differentiator, and in such a manner that the difference in blood pressure in inspiration and expiration is also increased, and the main arterial pressure of the body becomes inevitably greater; consequently we have, while breathing in the cabinet, a lowering of the capillary blood pressure of the lungs, which is sufficient to stop or diminish serious pulmonary hemorrhage." The results of the treatment by this method are certainly satisfactory. Dr. Williams' cases number 62, as follows:

DISEASE.	No. of Cases.	Recoveries.	Improved.	Not Improved.	Deaths.
Nervous cough..	2	......	....	2	
Bronchitis	20	20			
Unresolved pneumonia	3	3			
Primary infiltration	7	6	1		
Acute catarrhal phthisis	9	4	1	2	2
Chronic catarrhal phthisis	2	....	....	....	2
Chronic fibrous phthisis	9	....	8	1	
Chronic tubercular phthisis	5	....	....	....	5
Tubercular pleurisy	1	....	....	1	
Laryngeal phthisis	1	....	....	1	
Hemorrhagic phthisis	1	....	....	....	1
Abscess of lung	1	1			
Atrophy of lung	1	....	....	....	1

The cases reported in the death column were well advanced; two were greatly benefited. He gives histories of five cases of phthisis which recovered. Of the cases of primary infiltration which recovered, three gave evidence of breaking down. The progress in each case was unmistakable, and in less than two months objective symptoms of their former trouble were removed. The principal agents used as a spray were the mercuric bichloride and biniodide, iodine and carbolic acid, used singly or in combination.

Dr. Alfred S. Houghton treated thirty-four cases, as follows:

DISEASE.	No. of Cases.	Recoveries.	Improved.	Not Improved.	Deaths.	Result Unknown.
Chronic bronchitis	5	1	1	1	......	2
Asthmatic bronchitis	2	1	......	1		
Asthma	1	1				
Acute phthisis (first stage)	9	4	4	1		
Acute phthisis (second stage)	4	.....	3	1		
Acute phthisis (third stage)	5	.....	......	5		
Chronic phthisis	7	......	2	......	2	3
Unresolved pnenmonia	1	......	1			

Of the patients treated by Dr. Clark and myself, the result in three cases appears very favorable; other cases have been benefited. A paper will be presented later giving history of these cases and results of treatment. It would certainly seem that we have a method which promises a cure, but it must be applied early to obtain favorable results.

DISCUSSION.

Dr. R. D. Clark said that it was a well-established fact that at least one form of pulmonary phthisis was contagious; that almost all experimenters had succeeded in communicating the disease from one animal to another, and also from man to the inferior animals. He cited the case given by A. W. Blyth of a Greek physician, Zallouis, of Syra, who inoculated a man affected with gangrene of the foot with tubercular expectorations, and produced the disease, as was shown by the autopsy.

Of the three actions of the pneumatic cabinet he considers the one producing the vacuum by far the most important. By placing the patient in a partial vacuum and allowing him to breathe normal air from without, the inspiratory act is increased, by relieving the chest walls of the resistance of atmospheric pressure, thereby inflating collapsed air vesicles, supplying the system with more oxygen, and carrying germicides to the seat of disease, which have the effect, as he has frequently witnessed, of removing the signs of the disease.

As evidence that germicides do reach the most remote parts of the lungs, he quoted the experience of Dr. Williams on the rabbit. Dr. Williams placed a rabbit in the cabinet, connected the breathing tube of the cabinet with a canula inserted in the rabbit's trachea, and subjected it to a partial vacuum. A mixture of China ink and water was sprayed into the tube. After ten minutes the animal was killed, and the lungs were found, by microscopic examination, to be stained throughout.

Dr. Vander Veer: This is a treatment which I can say very little about. I should like to hear later what results Dr. Classen obtains with the cabinet.

Dr. S. B. Ward: I have been very much interested in the paper read this evening and very much pleased with the results thus far obtained, hoping at the same time that greater familiarity with the details of the use of this comparatively new instrument may enable us to handle it to still greater advantage.

Theoretical considerations, and deductions from previous observations, would lead us to expect the most benefit in cases of fibroid phthisis, while it is doubtful whether any benefit would be derived in cases of acute tuberculosis.

The advantages of change of climate in the treatment of phthisis are numerous. A location may be selected in which the temperature is very even for months at a time; or another in which the atmosphere is very free from moisture; or another in which it contains a pretty constant percentage of moisture with a perceptible amount of chlorides, iodides and bromides; one which is at the level of the sea; or one where the pressure of the atmosphere is taken off by an elevation of any amount you please, up to five or six thousand feet above the sea level. Important elements seem to be that the air shall be as nearly as possible free from germs, from dust, from impurities of all kinds; that it shall contain free ozone; and in some instances the presence of the fragrant exhalations from balsams and other evergreen trees seem to be peculiarly grateful and beneficial.

The use of the differentiator gives us a ready means of changing the amount of atmospheric pressure, but can scarcely fill any of the other indications. It is true that the pressure on the surface of the body may by its use be diminished, while that on the mucous surface of the air-passages and lungs is not changed; and it may yet be proven that this is an advantage not to be derived from a change of climate. While a patient using the instrument in our office must breathe the air of the office, with whatever impurities it may contain, yet it is very easy to medicate that air with almost any desired material and compel its application to the recesses of the breathing apparatus.

It is clear, then, that this instrument accomplishes different things from a change of climate, and it may yet be shown that they are in some respects better things.

I am credibly informed that Dr. Bowditch, of Boston, has been making use of the differentiator, and has obtained some gratifying results.

Dr. W. O Stillman said: "I think the gentlemen interested in this apparatus err slightly in assuming that it is a specially new invention. It so happened that for a number of years I was familiar with the use of a similar machine, the invention of Dr. Hadfield, who placed it in the market at least ten years ago, and I think earlier than that. The principle was precisely the same—that of a universal, or body, cupping apparatus, with the partial vacuum determined by a pressure gauge, and the patient breathing the outside air. Medicated inhalations could be used in conjuction with it if so desired. I regret to say that in my experience with the apparatus, which was a very costly one, extending over a period of five years, it proved a complete failure, as far as any curative powers are concerned, in consumption. Indeed, Waldenburg's pneumatic (compressed air) apparatus, which was in use at the same time, seemed to give rather better results. Medicated inhalations were also used, but with no permanent benefit. The beneficial effects of the "cupping" treatment were so slight, if any, that its use was largely discontinued toward the last.

So much for the practical side of the subject. In the theoretical aspects of the question, I fail to find arguments in its favor. If consumption be due to the *bacillus tuberculosis*, and I believe that the thinking members of the profession are practically agreed that the germ theory of the cause of this disease, if not already proved, is the only one which can explain its inception and course, then what germicidal properties can be supposed to be exerted by a relatively slight diminution of atmospheric pressure on the body for a short time? Further, unless my memory fails me, there is only a negative experience as regards the value of medicated inhalations, germicidal or otherwise, and they have no specially prominent advocates, although widely experimented with. This was also the verdict of some experiments which I witnessed tried in University College Hospital, London. It seems to me unreasonable to suppose that germicides can be taken into the lungs, of sufficient strength to kill the bacilli, without also endangering the histological elements of the lung tissue.

The point has been made that the value of elevated resorts, for consumptives, was largely due to the effects of rarified air. Even if it were not, what great good can accrue to a city denizen with tuberculized lungs sitting in (but not breathing) a rarified air for twenty or thirty minutes daily while exposed the remainder of the day to vitiated and germ-laden air ? Recent experiments have proven that the air is laden with germs in proportion to the low altitude and density of the population, and that consumption occurs more frequently, in the main, in proportion as these conditions are found accentuated. Thus, a cubic metre of air in the heart of Paris contained a choice assortment of several thousand germs, and an equal quantity of air examined at Devos Platz contained scarcely any. It might possibly be scientifically assumed that the value of mountain sanitaria is due to the purity and dryness of the air, and that it is necessary, as experience has proven, to remain some time under such conditions to realize improvement. I regret that my experience should differ from that of the reader of the paper, as it is very desirable to enlarge our armamentarium in combatting this terrible disease.

SOME THERAPEUTIC NOTES ON NEW REMEDIES.*

BY W. O. STILLMAN, M.D., ALBANY.
(ALBANY MEDICAL COLLEGE, 1881.)

PARALDEHYDE.—The question as to whether we have in paraldehyde a hypnotic of special excellence or not is one of great interest and importance to the profession, and one which has recently received considerable attention in the journals.

Paraldehyde is obtained by treating aldehyde with dilute sulphuric or nitric acid. It is interesting to note, in this connection, that chloral is obtained by the prolonged action of chlorine on absolute alcohol, and is, therefore, chemically, trichlorinated aldehyde. The two compounds, although both are powerful hypnotics and are both derived from aldehyde, are very different in important particulars. Aldehyde, as mentioned by Trousseau, was proposed as an anæsthetic by Paggiale, and was found to have valuable properties, in that respect, by Simpson, though less effective than chloroform. The aldehydes are intermediate chemically between the alcohols and the acids.

Paraldehyde is a clear, colorless liquid at ordinary temperatures. It has a disagreeable, ethereal odor. Below 50° F. it crystallizes. Its specific gravity is 0.998, and it is soluble one part in ten of water. The earliest reference which I can find to its medical properties is in the *British Medical Journal*, Vol. I., p. 215, 1883.

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* Read before the Medical Society of the County of Albany, Wednesday evening, March 31, 1886.

In its physiological action paraldehyde resembles chloral, in producing sleep by probably a direct action on the nerve centers. Unlike chloral, however, it is but slightly irritating locally, and so not usually a disturber of the stomach; and I have noticed the fact, early recorded, that it strengthens the heart's action, but diminishes its frequency, another most important difference from chloral. Prof. Prevost (paper at International Congress, Copenhagen) states that death is produced through paralysis of the respiratory center, the heart dying last; also that the reflexes, in anæsthesia from subcutaneous injections, remain much longer than after a similar use of chloral. It greatly increases the flow of urine, but does not affect the skin, nor produce after headache or any unpleasant symptom. I have used it for several months as a hypnotic, and find its action very uniform and reliable. Patients on taking it say they have had a calm, refreshing sleep, with no after effects to indicate that they have taken any drug, save an odor of the medicine (unfortunately quite disagreeable) about their breath; and in one case where it has been used more or less steadily for three months no increase in the dose has been found necessary, although I believe that there is a tendency toward the formation of a habit.

The following cases, taken from my note-book, illustrate its range of action:

Case I.—A male, aged 26, suffering from neurasthenia as a result of prolonged sexual excesses and seriously troubled with insomnia. During periods of several weeks at a time unable to get more than three or four hours' sleep at night. Stomach too sensitive to tolerate chloral. Thirty-five minims of paraldehyde, unless laboring under special excitement, secures a night's sleep of from seven to nine or even ten hours. Used for several weeks.

Case II.—A male, aged 65, a sufferer from the insomnia with which elderly people are frequently troubled. From twenty to thirty minims of paraldehyde secures good sleep. Used a few times only.

Case III.—A female, aged 38. Could not sleep from the pain of acute pleurisy. Stomach sensitive and does not bear morphia well. Forty-five minims of paraldehyde was followed by refreshing rest. Used but twice.

Case IV.—A female, aged 46. Affected with uterine epithelioma; local pain considerable and bladder very irritable. Thirty-five minims of paraldehyde sufficient to secure good rest. Used frequently.

Case V.—A male, aged 32. Cerebral hyperæmia and great nervous excitement consequent upon business worries and sleeplessness. Fifty minims of paraldehyde produced six to seven hours' good sleep. Used a few times. Smaller doses failed.

These cases are samples of a number of others with whom the drug was used. There seems to be about the same reliability for effect as with chloral. The dose is from fifteen to fifty minims. One and two-thirds drams daily has been reported as given in rheumatic tetanus. with curative effect, where chloral had failed (*Bull. Gén. de Thér.*, Oct. 25, 1884). Cervello, Dujardin-Beaumetz and Marselli corroborate its value in this affection. Bartholow has advocated its use in acute mania in a maximum dose of from two to three drams. The drug is, I believe, manufactured by Parke, Davis & Co., but I have used only Merck's make, Lehn & Fink, New York, importers. It may be procured directly from the latter, though I believe Dr. Nellis has some in stock, which he retails to physicians at twenty cents an ounce.

Nitro-Glycerine.—Considerable interest has been excited in the use of nitro-glycerine as a cure for angina pectoris since the recent award by the French Academy of Medicine of a special prize to Dr. William Murrell the alleged discoverer of its virtues in this affection. I have tried it in three cases, with the result of great relief in cutting short the paroxysm—complete relief, in fact, in two of the cases, but a failure as far as preventing its return is concerned, though the return was undoubtedly retarded. It proved a complete failure in a case of sciatica. I have, however, found it very valuable in a case of cerebral anæmia, and useful in one case of the night variety of epilepsy.

Carbolic acid internally, two to four drops, is a better antacid in indigestion than any alkali. It arrests fermentation, and usually gives quick relief in nausea and vomiting of pregnancy. —*Am. Prac. and News.*

"STRAIGHT" SUSPENSION FOR FRACTURED HUMERUS.*

BY C. M. WOODWARD, M.D., TECUMSEH, MICH.,
Major and Surgeon First Regiment, Michigan State Troops.
(ALBANY MEDICAL COLLEGE, 1867.)

April 24, 1885, John M. made an effort to stop a team by running beside the wagon to secure the reins. His right leg became entangled in the wheels; one of the wheels passed over the leg near the ankle, leaving a simple comminuted fracture. Another wheel passed across the body, inflicting internal injuries (which were followed by traumatic pleurisy), and broke the left humerus at the insertion of the deltoid muscle—an oblique fracture.

I reached the scene within half an hour after the accident. Two boards were procured of suitable lengths, upon one of which I secured the crushed and broken leg, and upon the other the broken arm, to prevent as much as possible any movements at the point of fracture. In this condition the patient was conveyed home, where the following treatment was given: After making extension of the legs, the fragments were moulded into shape. Two lateral splints of leather were moulded to the outer and inner aspects of the leg, and held in place by "retainers" and followed by the bandage. The leg was then swung in three leather slings, to elevated bars and a movable rod of iron, ordinarily the knee being somewhat higher than the foot. The bed consisted of a frame of solid maple, six feet long by two and a half feet wide, upon which was stretched and fastened a strong canvas, having at the proper point a commode hole cut out and bound. Near the head of the bed was attached a pillow-frame of light iron, with movable short iron rods attached to either side, as legs, to elevate the frame, by placing the free end of these legs into holes bored into the upper surface of the bed-frame for the purpose, the frame being covered with another piece of canvas, to give the patient the sitting position when desired. This bed-frame as now prepared is placed on a soft mattress, lying upon two boards of suitable length placed side by side upon two saw-horses, and the bed is complete. It could as well be laid on an ordinary bed. When necessary for the patient to attend to the calls of nature, the fracture bed is simply lifted and placed on two chairs, a slop-pail or other vessel placed under the commode hole, and there is no further trouble; after which the fracture-bed is again placed on the mattress, and there has been no disturbance whatever of the fractures.

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*Abstract of a paper read before the Michigan State Medical Society, June 10, 1885.

We come now to the most important part of the treatment in this case—the treatment of the fractured humerus. It is well known by the best surgeons all over the world that when fractures of the humerus are treated in the usual manner—that is, by the angular method—the forearm being flexed at right angles with the arm, in a few days the muscles about the elbow become stiffened and *fixed;* in other words, false anchylosis of the elbow joint occurs, so that every time the patient moves the hand up or down, no matter how slightly, the arm, instead of moving at the elbow joint, is disturbed continuously at the *point of fracture*, and right here may be found the cause of so many cases of delayed or non-union of this bone. The statistics in the history of fractures of the humerus show that in about one-seventh of all the cases there is either *delayed or non-union*, and when union does occur, there is very often angular deformity. To avoid these dangers, the following was adopted: One assistant fixed the scapula, while another made strong tension from the forearm and hand (the patient being under chloroform), while I adjusted the fractured ends of the bone and applied to the outer aspects of the arm a cap shoulder-splint of sole-leather (which half encircled the arm) from the shoulder to the carpal joint. On the anterior or inner side of the arm I applied a light wooden splint extending from the axilla to the middle of the hand, both splints having previously been well padded with cotton batting and covered with cloth. These were secured in place with retainers and a bandage applied from hand to shoulder. The whole arm was now placed in slings, the cords of which passed over an iron rod, supported by cranes, similar in form to those used on board ships and steam vessels to support the life-boats. The bar or rod is movable, and can be placed at different horizontal angles, thereby securing abduction or adduction of the entire arm at will, or can be elevated at any angle or lowered as desired, giving free motion at the shoulder-joint without the least danger of disturbing the point of fracture.

The point I wish to make is *the superiority of the straight*, over *the old* and *ordinary, angular method.*

Complete and perfect union of fractured humerus was obtained in *twenty-one days*, without any deformity or shortening. Complete and perfect union of the broken and crushed tibia in twenty-eight days, leaving a fine, straight limb. The patient made the statement many times that he had never suffered a *half-hour's pain* with his fractures since he received his injuries.

The advantages claimed for this "straight" method of treating fractures of the bones under consideration are the good results, with rapid union; and for the fracture bed and apparatus, simplicity in their construction and the *perfect comfort to the patient*, and the ease with which he may be cared for.

By this bed and apparatus the relief to the surgeon of the care and anxiety incident to such cases is *immense*, as the dressings do not become loosened and displaced, and there is thereby no danger of injury or displacement at the point of fracture, and no danger even of *pain* being inflicted on the patient if, while asleep and dreaming, a sudden start should be made, as is common in such cases, as the limbs swing easily in their hammocks, responding readily to every movement of the body, and yet with no possible chance of injury to, or disturbance of, the fracture in any way.

I have had other cases, similar to the above, treated in like manner, with the same good results. The report of this case is, however, considered sufficient to illustrate the principle of treatment, with the results obtained. The patient was able to move about on a crutch at the end of six weeks, using his leg considerably, as well as his arm, and, what was quite remarkable, there was little or no stiffness at the elbow joint within a week after the splints were removed, which was at the end of twenty-eight days from date of fracture.—*The Physician and Surgeon*, Ann Arbor, Mich., Oct., 1885.

Boracic Acid in Diabetes Mellitus.—F. A. Moncton (*Australian Med. Gaz.*) reports that he has cured one case of diabetes mellitus with this drug. The patient was not stringently dieted, but was given seven grains of boracic acid three times a day, and at the end of ten weeks the sugar had all disappeared from the urine, and its specific gravity was reduced from 1025 to 1016. The drug produces no unpleasant effect.

ABSTRACTA.

Tubercular Phthisis; Treatment of First Stage.—Nutritious food, a well-ventilated room and a certain amount of outdoor exercise must be insisted upon from the beginning; tonic measures are also indicated. Cod-liver oil, as a rule, is not well borne when there is a high range of temperature. The time for that useful agent will come later. The cough, owing to its tendency to induce hemoptysis, should be held in check. The popular "hydrocyanic mixture" used in the public hospitals of New York will be useful for this purpose. The formula is about this:

℞ Morphiæ sulphat........... gr. 1-16
Acid. hydrocyan. dil....... gtt. j
Syr. tolutan............... ʒ j

M. One dose. To be repeated four to six times daily.

Cyanide of potassium (gr. 1-16) may be substituted for the hydrocyanic acid. Morphia, in small doses, is not apt to be attended with evil results, but if it be objectionable, a few drops of chlorodyne or an occasional drop or two of wine of antimony will serve to keep the cough in check. Later along, when the expectoration becomes profuse, we must give stimulating expectorants to enable the patient to get rid of the excessive secretion. If an attack of hemoptysis should supervene, the patient should at once be placed in the recumbent position and kept perfectly quiet, and should swallow small pieces of cracked ice every few minutes, or an ice-bag may be placed over the chest, care being taken not to allow freezing of the surface to occur. I have found these measures, together with the use of this formula, invariably successful in the treatment of hemoptysis:

℞ Ext. ergot. fl................ fl ʒ vj
Tinct. opii deodorat.......... fl ʒ ij

M. Dose 20 to 25 drops, to be repeated every fifteen minutes until hemoptysis ceases.

For the nightsweats the patient should take every night at bed-time one-sixtieth of a grain of atropine in solution or one-thirtieth to one-twentieth of a grain of picrotoxine.

Aromatic sulphuric acid and oxide of zinc are also useful for colliquative sweats. There is no little difference of opinion in regard to the value of local measures in the treatment of phthisis. Of late there seems to be a tendency to discard them altogether among many practitioners. Pain is very seldom a prominent symptom in phthisis. If it should be severe, moderate counter-irritation, cautiously applied, may be found to promote the comfort of the patient. Vienna paste (equal parts of potassa and lime made into a paste with alcohol) is strongly recommended by no less an authority than M. Jaccound. Whether or not such applications promote the resolution of diseased lung tissue or tend to promote phthisical processes is quite problematical. It strikes me that a tri-weekly painting of the affected parts with tincture of iodine or a vigorous friction with the liniment of ammonia before retiring, together with careful protection of the surface by means of warm flannels, will accomplish about as much as we can expect from topical measures.

Very little has been determined positively with regard to the value of different resorts for consumptive patients, and such treatment is as yet largely experimental. Physicians in the eastern states usually advise their patients to go to the pine regions of southern Georgia or to Florida at the beginning of winter, returning north again gradually as spring approaches. I would advise to exchange the changeable climate and humid atmosphere of the Atlantic seaboard for the high bracing latitude of Colorado.—*James K. Crook, M.D., N. Y. Post-Graduate School, in Weekly Medical Review.*

GAS AS A HEALTH PRESERVATIVE.—It has been known almost since the establishment of gas works that the exhalations arising in the various processes of gas manufacture, although, perhaps, not specially pleasing to the olfactory organs, are not detrimental to health, but are, on the contrary, highly beneficial in special forms of disease, such as whooping cough and croup. The extensive use, in throat ailments, of preparations in which some form of carbolic acid figures largely, is a testimony to the value of this derivative of coal tar as a therapeutic agent. A recent issue of the *Journal des Usines a Gaz* contained particulars respecting certain investigations, made by Dr. Lemaire some years ago, into the subject of the influence of coal tar and its derivatives upon the health of the workmen employed in the preparation of these substances. His inquiries were made chiefly in connection with the employés of the Paris Gas Company. He found that those whose duties did not necessitate a prolonged stay in the parts of the works where tar was to be found were liable to all kinds of ailments, and formed a considerable proportion of the number of the sick list, while among the workmen specially occupied with tar, only three were sick in the course of seven years. This result is all the more striking when the number of workmen in the service of the company at the period referred to is considered. There were altogether 20,553 men, of whom 764 were engaged in some occupation connected with tar. Dr. Lemaire also cites the case of the Bayonne Gas Works, where the workmen had not only not been attacked by cholera during its prevalence, but generally enjoyed immunity from skin diseases. M. Bouley, a professor at the Veterinary School, at Alford, found, as long ago as 1860, that gas-work employés escaped during cholera epidemics, and the communication of this fact to Dr. Lemaire caused him to institute his inquiries into the subject.—*Scientific American.*

PASTEUR'S CONFIDENCE.—PARIS, *April* 18.—Having submitted several questions to Pasteur in writing, *The Tribune* representative received written replies as follows: "Why has your treatment failed to save the lives of the three Russians bitten by a wolf?" "The bites of the wolf are in general numerous, and are nearly all on the head. The dog usually bites but once and then runs away, while the wolf seizes the victim and bites many times." "Does the repetition of the bite of the same animal make the case worse than when there is only one bite?" "Certainly. The more the bites and the worse the victim is lacerated, the more the virus is introduced into the blood and the more intense is the disease." "In the case of a bite from a mad wolf, how long a time may elapse before you begin your treatment with any hope of cure?" "The duration of the incubation of hydrophobia after a bite from a mad wolf is often very short: sometimes only two or three weeks. After a bite of a mad dog short periods of incubation are rare. However, I do not think the virus of a mad wolf differs much from that of a mad dog, unless the wolf has received the virus from another wolf and that one from another, and so on. In the case of hydrophobia thus transmitted from wolf to wolf, the bite of the last wolf would have a much greater degree of virulence than that of a dog." . . . "After a patient has been bitten by mad dogs, how is it that your injections of weakened virus at first, followed by injections of virus of greater intensity, can prevent the original strong virus received from the animal's teeth from taking its natural course?" "Because the virus which I introduce acts upon the system more rapidly than that of a bite." "Will it ever be possible to apply the same principle to the treatment of snake bites?" "No; because the bite of a snake acts so quickly. It acts like any other acute poison."—*New York Tribune*, April 19, 1886.

PASTEUR.—*Mrs. Muldoon:* Mrs. Mulcahey, have ye heard the new rimidy for hydrophoby?

Mrs. Mulcahey: No, faith. Phat is it?

Mrs. Muldoon: Plaster of Paris, begorra!—*Indiana Pharmacist.*

RESUSCITATION OF THE DROWNED.—*The Medical Advocate* (New York) mentions a case of drowning treated by certain physicians who had been in more or less active practice for over five years. They seemed to be entirely at loss what to do first. They forgot all about how to produce artificial breathing, and what they did do was precisely what they ought not to have done. In half an hour they desisted, and pronounced the case hopeless. An ordinary boatman, who was, fortunately, experienced in such cases, arrived on the spot as the physicians ceased their efforts, and by proper management succeeded in saving a human life.

The instructions for resuscitating adopted and published by the United States Life Saving Service are so efficient, and at the same time so simple, that we commend them to the attention of the profession. They are, in substance, as follows: The moment the body is taken from the water it should be stripped to the waist. The clothing having been made into a roll to raise the pit of the stomach above the level of the mouth, all fluid should be forced out by pressure; this is done by placing one hand on the back, just below the scapulæ, and the other on the chest at a point directly opposite. Having proceeded thus far, with as little delay as possible, turn the body upon its back, place the roll of clothing under the small of the back, and practice artificial respiration as follows: Grasp the chest on either side of the pit of the stomach, gradually pressing forward and upward until the whole strength is used, and then suddenly letting go; continue to repeat this operation with the regularity of natural breathing. As there are cases on record where the respiratory function has been re-established after having ceased for more than an hour, it is well not to be impatient of results; any time within two hours your efforts may be crowned with success, without there being any previous sign to indicate it.

A QUICK FILTER.—C. F. Nixon (*Druggists' Circular*) says: "Take a clear piece of chamois-skin, free from thin places, cut it of the desired size, wash it in a weak solution of sal soda or any alkali to remove the grease, and rinse thoroughly in cold water before using. Tinctures, elixirs, syrups, and even mucilages, are filtered rapidly. A pint of the thickest syrup will run through in four or five minutes. By washing thoroughly after each time of using it will last a long time."

OXALATE OF CERIUM IN CHRONIC COUGH AND VOMITING.—Fifteen grains every three hours allays the cough of phthisis. It is of great service in vomiting of cholera infantum, and of uterine engorgement of menstruation of women. In the vomiting of pregnancy we have not known of its being of great advantage. In the vomiting of chronic gastritis we have known of its being of signal benefit. The remedy has heretofore been neglected, because the usual dose was by far too small; hence, its apparent uselessness.—*Eclectic Medical Journal.*

TREATMENT OF ACUTE CORYZA.—Dr. S. S. Cohen (*Phila. Med. Times*) gives 1-120 of a grain of atropia every four hours until there is dryness of the throat. Afterwards to relieve the unpleasant symptoms of dryness, he gives one-sixteenth of a grain of pilocarpine. When cases are seen too late to use atropine with advantage, he has obtained good results from ammonium salicylate, ten to fifteen grains every two hours until tinitus aurium is produced. Cocaine can be used to allay local symptoms until the medicine has had time to act.

THE THIRD CORPUSCLE OR BLOOD-PLAQUE.—Dr. William Osler, of Philadelphia (*Cartwright Lecture*, published April 3, 1886) defines what is called the third blood corpuscle or blood-plaque as a colorless, protoplasmic disk, constant in mammalian blood, measuring from 1.5 to 3.5 micromillimetres. The number per cubic millimetre in the blood of a healthy adult is about 250,000, but their number varies greatly at different periods of life and with varying conditions of health and disease. The ratio to the red is about 1 to 18 or 20. They are delicate elements, and, like the red corpuscles, tend, on the withdrawal of the blood, to adhere to one another, when they form the irregular granular clumps which have long been known as Schultz's granule masses.

The plaque is colorless, with a uniform grayish-white appearance, homogeneous or finely granular, and presents no differentiation in the delicate protoplasm of which it is composed. So far as his observation goes, it is always colorless.

The shape of the normal plaque, as seen in the vessels, is a circular disk with smooth, well-defined margin. When slightly tilted it has naturally an ovoid appearance, and when seen in profile is a narrow, straight rod or staff. Whether they are flat disks, or biconcave, as like red corpuscles, is really not easy to determine.

In the unaltered condition no nucleus can be seen, but in the fluids used to conserve them the appearance is in the form of a collection of distinct granules, which may look like a nucleus. This will sometimes, in dried preparations, stain a deeper color in the hæmatoxylon than the remainder of the plaque, and it is regarded by Hayem as a nucleus.

A majority of observers regard the plaque as independent elements in the blood; others agree with Hayem that they are young red corpuscles—hæmatoblasts.—*The Epitome.*

THE DECLINE OF IRIDECTOMY.—"We note," says the *Medical Press*, "that M. Panas, of Paris, in advocating a new ophthalmic antiseptic, boasts that he has been able to do away with Von Graefe's method of cataract extraction (linear incision with iridectomy) and revert to the older flap operation, reserving the iridectomy for exceptional cases. Ophthalmologists have recovered from the iris-snipping craze, are convalescing from the jequirity fever, and are down in the cocaine epidemic. Shall we not look back on the literature of the iridectomy mania and profit by the proof since given that nine-tenths of what was then written in praise of iridectomy was nonsense—that most of the statistics of cures were cooked and unreliable, and that we retain at the present day nothing gained from the ophthalmological perfect cure except its occasional use as a forlorn hope?" *Am. Prac. and News.*

ALBANY MEDICAL ANNALS:

A Journal of the Medical Society of the County of Albany.

EDITORIAL COMMITTEE:

F. C. CURTIS, M.D., A. VANDER VEER, M.D., LORENZO HALE, M.D.,
JNO. BEN. STONEHOUSE, M.D., WILLIS G. TUCKER, M.D.

Vol. VII. MAY, 1886. No. 5.

BOOK NOTICES.

DISEASES OF THE SPINAL CORD. By Byron Bramwell, M.D., F.R.C.P. (Edin.), Lecturer on the Principles and Practice of Medicine, and on Medical Diagnosis in the Extra Academical School of Medicine, Edinburgh; Pathologist to the Edinburgh Royal Infirmary, etc., etc., etc. Illustrated by fifty-two full-page lithographic plates, in colors, and many fine wood engravings. Being Vol. I. of Wood's Library for 1886. New York: William Wood & Company.

This magnificent book is one of the wonders of a progressive age. In this second edition every page has been subjected to careful revision, and considerable space has been given to the important and difficult subject of concussion of the cord, and the method of examining "railway spine," which is to many practitioners worth the price of the whole 1886 library. This treatise includes diagnosis, prognosis and treatment of the functional affections, organic diseases and lesions of the cord. Practical directions for applying electricity are given. Many of the old illustrations of the first edition are missing from this current issue, and a profusion of new figures, both woodcuts and chromolithographs, has been added at great expense.

Members of the Medical Society of the County of Albany will recall a meeting of quite unusual interest at which Dr. Henry Hun read a paper on the "Differential Diagnosis between Locomotor Ataxia and Spasmodic Spinal Paralysis," illustrated not only with patients presented, but with drawings enlarged from selections in the first edition of this work of Bramwell's.

This paper was printed in the ALBANY MEDICAL ANNALS for March, 1885,with illustrations specially engraved for the ANNALS, modeled from engravings in Bramwell's book.

INSANITY AND ITS TREATMENT. Lectures on the Treatment, Medical and Legal, of Insane Patients. By G. Fielding Blanford, M.D., (Oxon.), Fellow of the Royal College of Physicians in London; late Lecturer on Psychological Medicine at the School of St. George's Hospital, London. Third Edition. To which is added Types of Insanity. An Illustrated Guide in the Physical Diagnosis of Mental Disease. By Allan McLane Hamilton, M.D., one of the Consulting Physicians to the Insane Asylums of New York City, and the Hudson River State Hospital for the Insane. Illustrated by ten full-page plates from photographs of cases selected as types, with descriptive text. Being Vol. II. of Wood's Libraey for 1886. New York: William Wood & Company.

The usefulness of this instructive and entertaining book is not confined to the medico-legal student and to the specialist only. Every practitioner can find in it much that is of value to him in his daily round. The twenty lectures cover the essential points of the phenomena of mind, the pathology, causes, symptoms, forms, terminations and treatment of insanity, the diagnosis in cases where insanity is doubtful, the discussion of "moral insanity, so called," of the "legal test of insanity, the knowledge of right and wrong," the law of lunacy, etc.

"Types of Insanity," by Allan McLane Hamilton, M.D., besides the ten large plates drawn from instantaneous photographs, includes five chapters on the general appearance of the insane, the condition of special organs, the condition of bodily functions, the examination of patients, and the commitment of insane, with abstract of laws in various states, thus making the volume American as well as English.

DISEASES OF THE CIRCULATORY AND RESPIRATORY APPARATUS. Illustrated by one hundred and three fine wood engravings. Being Vol. I. of the Handbook of Practical Medicine. By Dr. Hermann Eichhorst, Professor of Special Pathology and Therapeutics and Director of the University Medical Clinic in Zurich. In four volumes. Being Vol. III. of Wood's Library for 1886. New York: William Wood & Company.

The recommendation of iron and iodine for exophthalmic goitre, and the omission of reference to Graves, Stokes and Trousseau among authorities named, may be due to the German nationality of the author; the German title, "Basedow's Disease," is of course preferred by a German writer.

This book justly claims attention as preëminently modern. The pathology and treatment are according to the most advanced views of the world's best investigators. For instance, pneumonia is regarded as an infectious disease, and the arguments on that point and a few facts about the pneumococcus are lucidly stated. In the treatment of pneumonia, alcohol stands first; next in order, antipyrin, kairin, quinine, salicylic acid, etc., and benzoate of sodium. Some good men will find the following quotation hard to swallow: "Tartar emetic, veratrine, and digitalis act as antipyretics only by diminishing the vigor of the heart's action and producing collapse, and should not be employed in pneumonia. This is also true of venesection" (page 311).

Interest has lately been revived in our locality in the subject of pneumatic cabinets. Four pneumatic machines are illustrated, and recommended in emphysema, but the consideration of phthisis is not included in this volume.

The translator has succeeded admirably in rendering good, easy-reading English. The sentences are not burdened by unnecessary words. The author himself is free from wandering discussions, and his meaning is everywhere unmistakable, sharply defined and clear cut. The book grows in value as it is being read.

THE GENUINE WORKS OF HIPPOCRATES. Translated from the Greek, with a Preliminary Discourse and Annotations. By Francis Adams, LL.D., Surgeon. In two Volumes. Volume I. Being Vol. IV. of Wood's Library for 1886. New York: William Wood & Company.

The accomplished Dr. Adams was appointed to the task of translating and editing the works of the great Hippocrates by the Council of the Sydenham Society. The volume before us is the first of two volumes which will include the whole of those treatises now regarded as genuine. Many scholars, even outside of the medical profession, will be delighted with these books. The works of Hippocrates have heretofore been like a "sealed book;" but now we have in good English, in clear type, with explanatory notes and illustrations, the opinions of an author who is believed to be "the highest exemplar of professional excellence which the world has ever seen."

GALABIN'S MIDWIFERY. By Alfred Lewis Galabin, M.A., M.D., F.R.C.P., etc., Obstetric Physician and Lecturer on Midwifery and the Diseases of Women to Guy's Hospital; Examiner in Midwifery to the Conjoint Examining Board for England. 227 illustrations, 753 pages, small octavo. Cloth, $3.00; sheep, $3.50. Philadelphia: P. Blakiston, Son & Co.

This attractive volume is offered as a new manual for students. Although compactly printed, the type is clear and easy for the eyes, and the abundant illustrations are a great aid to study.

The section of the pelvis parallel to the plane of the brim, which affords the best means of studying the effects of the body weight on the shape of the brim, has not, the author thinks, hitherto been figured in obstetric works.

The eliminination of anatomical matter not directly bearing upon midwifery, and the exclusion in embryology of all points not needed to explain the formation of the placenta and fœtal membranes, give the author reason to say that, within the compass of this not very large book, he has included every thing likely to be required by students or practitioners.

On all practical points the author explains the latest teachings of the recognized authorities, and, in addition to this, he refreshes the reader by independent recommendations which differ from views of the majority. For example: On the choice of a leg to seize in version for shoulder presentation; the application of a noose to the prolapsed arm; the serrated hook for decapitation; the vectis in occipito posterior position; and the use, under exceptional circumstances only, of oscillatory motion in extracting with forceps.

In some theoretical matters he claims originality of explanation: How flexion is produced by the pressure of the girdle of contact on the head; the opposite modes in which the head may pass the brim of a flattened pelvis; the proof that correct axis-traction may be exercised by ordinary long-curved forceps; the leverage action of forceps; the lateral obliquity of the fœtal head.

The author's (Galabin's) axis-traction forceps are compared with Tarnier's and other forms of axis-traction forceps, and are said to be in several respects more convenient than Tarnier's, and may be used for the low operation as well as for the high.

L. H.

EASY LESSONS IN SANITARY SCIENCE. By Joseph Wilson, M.D. P. Blakiston, Son & Co., Philadelphia. $1.00.

This book must not be confounded with the well-known one by Dr. George Wilson, of London; its author is a medical director in the United States navy, and the book has quite a different scope and purpose. In some respects it is a most useful book. There is a growing class of men in every community who desire some knowledge on sanitary affairs, especially those who, under the existing health laws of this state, are brought into the local health boards. They will be very unlikely to satisfy themselves with technical books; they will take readily to those which in an easy way convey the desired information. It is really a most desirable thing that a book should be written for just this class, and the present volume, which is well suited to their needs, will be of great value by getting a circulation here. The book, in seventy-five octavo pages, shows very graphically, by illustration and description, the unhygienic effect of many conditions which obtain about a large proportion of the country residences especially, and in an attractive manner and with a simplicity that the most unscientific person can understand. Much good would follow if it were in the hands of all the 1,300 local boards of health in this state. At the same time there is much instruction for most medical men, as well as for sanitary engineers, and it will not come amiss in any physician's library.

F. C. C.

DISEASES OF THE DIGESTIVE ORGANS IN INFANCY AND CHILDHOOD, with chapters on the Investigation of Disease, and on the General Management of Children. By Louis Starr, M.D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania, etc. 385 pp., octavo. Cloth, $2.50. Philadelphia: P. Blakiston, Son & Co.

Practical, plain, good sense, which can be acquired only by personal experience and careful observation, shines out from every part of this book. Questions which are put to the physician in families where artificial feeding of infants is in progress are intelligently discussed and decided. The bulk of the book treats of the diagnosis, treatment, etc., of affections of the mouth, throat, stomach, intestines, mesenteric glands, liver and peritoneum. Without neglecting therapeutics, the author has given greater prominence to matters of diet, sanitation and hygiene.

The author expresses his obligations to Dr. Henry D. Harvey for the valuable index, and to the pencil of Dr. John Madison Taylor for the illustrations.

The young physician who studiously digests this volume will gain an equivalent to many years of experience. L. H.

Venereal Diseases. By Berkeley Hill, M.D., Professor of Clinical Surgery, University College, London, etc., and Arthur Cooper, M.D., Surgeon to the Westminster General Dispensary, etc. Fourth edition, revised, 132 pp., duodecimo. Cloth, $1.00. Philadelphia: P. Blakiston, Son & Co. 1886.

This student's manual is intended to be a concise description of the venereal diseases and accessory disorders, and their treatment, with formulæ in an appendix. It does not include stricture of the urethra. The gonococcus is simply mentioned Hypodermatic use of bichloride of mercury in constutional syphilis is not wholly slighted, although calomel subcutaneously is not mentioned. Iodoform treatment of chancre is modern, and the treatment of all conditions is of recognized authority. There is much that is good in the book, and the classification of minor matters will be found convenient. L. H.

PERSONALS.

—Dr. H. Bendell (A. M. C., '62) has purchased the property No. 178 State street, and has removed both residence and office to that place.

—Meyer L. Rhein, M.D., D.D.S. (A. M. C., '80), is associated in the practice of dentistry with Frank M. Odell, M.D., D.D.S. On Mondays, Wednesdays and Fridays Dr. Rhein is at 104 East Fifty-eighth street, New York city, and on alternate days in East Orange, N. J., third house east of Halsted, on Main street, south side.

—Dr. William E. Milbank ('72) has removed his office to 111 State street.

—Dr. W. F. Robinson ('84), 214 State street.

—John A. Cutter, B.Sc., M.D. ('86), is associated in the practice of medicine with his father, Prof. Ephraim Cutter, M.D., 213 West Thirty-fourth street, New York city.

—Dr. Med. Gust. Beck, editor of the *Zeitschrif für Arztliche Polytechnik*, writes us as follows:

To the Hon. Editors of the Albany Medical Annals:

Gentlemen—I should be very obliged if you would send me the article, Cutter: A Porcelain Stem Pessary, contained on p. 225–233, 1885, of your esteemable journal.

I have the honour to be, Yours truly,

DR. G. BECK.

BERN, SWITZERLAND, *April* 1, 1886.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY.

ABSTRACT OF THE MINUTES OF THE STATED MEETINGS OF FEBRUARY 10 AND APRIL 21, AND OF SEMI-ANNUAL MEETING OF MAY 11, 1886.

A regular meeting was held at Alumni Hall, Wednesday evening, February 24, 1886.*

Present: President B. U. Steenberg and Drs. Bartlett, E. E. Brown, D. C. Case, Curtis, Mary DuBois, Lorenzo Hale, John E. Hall, H. Hun, Marselius, W. J. Nellis, Russell, Scattergood, Van Allen, Vander Veer and Ward; also Mr. Fanning, of State Board of Charities and Correction, and Rev. Mr. Foster, as visitors.

The minutes of previous meeting were read and approved.

Willard C. Marselius, M.D., was proposed for membership by Dr. Vander Veer. Referred to Board of Censors.

Dr. S. A. RUSSELL read a paper on "Insanity."

Discussed by Drs. Lorenzo Hale, A. Vander Veer, E. A. Bartlett, S. B. Ward and S. R. Morrow.

Adjourned.

A regular meeting was held in Alumni Hall, Wednesday evening, April 1886.

Present: President B. U. Steenberg and Drs. T. P. Bailey, O. D. Ball, E. A. Bartlett, James P. Boyd, H. S. Case, F. L. Classen, J. L. Cooper, Joseph D. Craig, Mary DuBois, M. J. Dwyer, David Fleischman, John E. Hall, William Hailes, Jr., John V. Hennessy, D. W. Houston, P. J. Keegan, Maurice J. Lewi, J. H. Mitchell, F. D. Morrill, S. R. Morrow, G. S. Munson, P. M. Murphy, W. H. Murray, T. W. Nellis, W. J. Nellis, G. H. Newcomb, H. S. Paine, Otto Ritzman, S. A. Russell, John Thompson, F. Townsend, Jr., T. M. Trego, G. L. Ullman, T. F. C. Van Allen, A. Vander Veer, E. Van Slyke, S. B. Ward, Harriet Woodward, and many students and visitors.

The Secretary read the minutes of the last meeting, which were approved.

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*The minutes of this meeting should properly have followed directly after those of February 10, on page 96.

W. H. Holding, M.D., of West Troy, was proposed for membership by Dr. R. H. Sabin. Referred to the Board of Censors.

Dr. S. R. MORROW then reported five cases of Macewen operation for knock-knee.

Discussed by Drs. William Hailes, Jr., A. Vander Veer and S. B. Ward.

Dr. A. VANDER VEER then read a paper on "Abdominal Section."

Discussed by William Hailes, Jr., and F. Townsend, Jr.

Dr. VANDER VEER moved, at the request of Dr. H. S. Paine, that the reading of Dr. Paine's paper be postponed till the next meeting. Carried.

The Secretary called the attention of the Society to the custom of having its membership published in the Albany City Directory and ALBANY MEDICAL ANNALS.

On motion of Dr. S. R. Morrow the Society voted the usual appropriation for that purpose.

Adjourned.

The semi-annual meeting was held at Alumni Hall, Tuesday, May 11, at 3 o'clock P. M.

Present: President B. U. Steenberg and Drs. O. D. Ball, J. M. Bigelow, James P. Boyd, D. C. Case, F. L. Classen, D. H. Cook, John L. Cooper, Joseph D. Craig, W. H. Craig, F. C. Curtis, Mary DuBois, J. D. Featherstonhaugh, S. H. Freeman, Lorenzo Hale, William Hailes, Jr., John V. Hennessy, H. V. Hull, P. J. Keegan, F. D. Morrill, S. R. Morrow, W. J. Nellis, H. S. Paine, W. H. T. Reynolds, S. A. Russell, R. H. Sabin, W. B. Sabin, C. F. Scattergood, J. W. M. Shattuck, Franklin Townsend, Jr., G. L. Ullman, T. F. C. Van Allen, E. Van Slyke, S. B. Ward, and a number of visiting physicians.

The minutes of the annual meeting were read and approved.

The Board of Censors reported as follows:

At a meeting of the Board of Censors of the Medical Society of the County of Albany, held at Alumni Hall, May 11, 1886, the following names, with the necessary credentials, were presented and unanimously recommended for membership to this Society: Orson Britton, Albany; John V. Hennessy, Albany; W. C. Marselius, Albany; John L. Cooper, Albany.

On motion, the gentlemen recommended by the Board of Censors were elected to membership.

The following gentlemen were proposed for membership: By Dr. A. Vander Veer, Dr. Martin McHarg, of Albany; by W. J. Nellis, Dr. E. Haines, of South Westerlo, N. Y.; by Dr. S. H. Freeman, Dr. J. W. M. Shattuck. Referred to the Board of Censors.

Dr. WILLIAM HAILES, Jr., said: Mr. President, we have all heard with deep sorrow of the death of Dr. Henry March, and I move you, sir, that the President appoint a committee to draft suitable resolutions, and that a memorial meeting be called previous to the time appointed for the funeral services, in which those who desire may pay a tribute to his memory. Carried.

The President appointed as such committee Dr. S. H. Freeman, A. Vander Veer, J. D. Featherstonhaugh, William Hailes, Jr., and James P. Boyd.

Dr. H. S. **Paine** then read a paper on "The Utility of Hot Water in the Treatment of Uterine and Pelvic Diseases, as Applied by Means of the Perfection Douche Apparatus."

Discussed by Dr. F. Townsend, Jr.

Dr. O. D. **Ball** then delivered the semi-annual address.

On motion of Dr. J. D. Featherstonhaugh, the thanks of the Society were extended to Vice-President Ball for his interesting and instructive address and a copy requested for publication.

Adjourned.

W. J. **Nellis**, *Secretary.*

MEDICAL SOCIETY OF THE COUNTY OF ALBANY—OFFICERS AND MEMBERS.

Annual meeting, second Tuesday in October. Semi-annual meeting, second Tuesday in May. Stated meetings are held Wednesday evenings, at Alumni Hall, Albany Medical College, at least once each month, from October to May.

Officers.—B. U. Steenberg, president; O. D. Ball, vice-president; W. J. Nellis, secretary; U. B. La Moure, treasurer.

Censors.—J. D. Featherstonhaugh, A. T. Van Vranken, W. H. T. Reynolds, Franklin Townsend, Jr., T. P. Bailey.

Standing Committees.—Pathology, William Hailes, Jr., chairman; A. Vander Veer, Henry Hun, Seth G. Shanks, Maurice J. Lewi, Eugene Van Slyke. Hygiene and the Relations of the Profession to the Public, E. A. Bartlett, chairman; F. C. Curtis, Lewis Balch, Lorenzo Hale, Selwyn A. Russell, A. T. Van Vranken, D. C. Case. Registration, D. Fleischman, chairman; Henry March, H. E. Mereness, J. W. Moore, Secretary W. J. Nellis, *ex-officio.* Executive, President Steenberg, Vice-President Ball and Secretary Nellis, *ex-officio;* J. U. Haynes, D. H. Cook.

Delegates to State Medical Society.—Herman Bendell, James P. Boyd, D. H. Cook, C. S. Merrill.

Archambeault J. L. 56 Congress, Cohoes, 8-9, 1-3, 7-9
Bailey Theodore P. 95 Eagle, 9-10, 3-4, 7-8
Bailey William H. 1 Washington av. 8-9, 3-4, 8-9
Balch Lewis, 14 Washington av. 8½-9½, 2-3½, 7-8
Ball O. D. 691 Broadway, 8-9, 1-3, 6-8
Barker James F. 48 Clinton av. 9-10, 2-3, 6-8
Bartlett E. A. 65 Jay, 8-9, 1-3, 6-7
Becker Hiram, New Salem, 8-9, 1-2, 7-9
Beckett Thomas, 276 Washington av. 7-9, 1-3, 6-10
Bell H. W. 382 Broadway, E. Albany, 8-10, 1-2, 6-8
Bendell Herman, 178 State, 9-4
Bigelow J. M. 3 Lancaster, 8½-9½, 2-4, 7-9
Blair L. E. 46 Eagle, 8-10, 2-4, 6-8
Blatner J. H. 132 Hudson av. 8-9, 2-3, 6-8
Boudrias L. 105 Mohawk, Cohoes, 8-10, 1-3, 7-9
Boulware J. R. 171 Hamilton c. Eagle, 8-9, 2-3, 7-8
Boyd James P. 212 State, 8½-9½, 1½-3½, 7-8
Britton Orson, 164 Elm
Brown Edward E. 91½ Hudson av.
Brown R. J. 648 Central av.
Case Daniel C. Slingerlands, 8-9, 6-9
Case H. S. 63 Madison av. 8-10, 2-3, 6-8
Clark R. D. 65 Grand, 8-9, 12-2, 6-8
Classen F. L. 66 Grand, 9-10, 2-3, 7-8
Cook D. H. 264 Clinton av. 8-9, 1½-3, 6-8
Cooper John L. 705 Broadway, 8-9, 12-2, 6-8
Craig William H. 12 Ten Broeck, 8-9, 2½-3, 7-8
Craig Joseph D. 12 Ten Broeck, 9-10, 2-3, 7-8
Crawford C. H. 226 Hudson av. 8-10, 2-4, 7-8
Crounse Hiram, Clarkesville, 9 A. M. 4 P.M.
Crounse, Jesse, Knowersville, 8-9, 7-9
Culver C. M. 36 Eagle, 9-12, 2-4
Curtis F. C. 17 Washington av. 8-9, 2-3, 7-8
Davidson J. R. South Bethlehem, 8-9, 1-2, 6-7
DeGraff A. Guilderland, 8-9, 1-2, 6-7
Devol C. 48 Franklin, 8-9, 12-2, 8-9
DuBois Mary, 192 Hamilton, 11-2, 7-8
Dwyer M. J. 103 Eagle
Elmendorf G. E. Coeymans Hollow
Featherstonhaugh J. D. 3 Summit, Cohoes, 2-3, 7-8
Fennely P. E. 97 Broadway, West Troy, 10-12, 4-5
Fisk Frank H. 76 Hudson av. 8-9½, 1-3, 7-9
Fleischman D. 134 Hudson av. 8-10, 2-3½, 7-8
Fowler Amos, 29 Second, 8-9, 1-3, 7-9
Fredenburgh B. B. Spraker's Basin, Montg. Co.
Freeman S. H. 77 Columbia, c. Chapel, 8-9, 1-2, 6-7
Graveline L. C. B. 119 Green, 8-9, 1-3, 7-9

Hailes William Jr. 197 Hamilton, before 9, 1-2, 6-7½
Haines Edwin, South Westerlo
Hale Lorenzo, 194 Clinton av. 8-9, 2-3, 6-7
Hall John E. Green Island, till 9½, 1-3, 6-7
Hallenbeck E. C. Bethlehem Centre.
Haskell J. M. Second, Bath, 8-9, 12-2, 7-9
Haynes J. U. 76 Remsen, Cohoes, 8-9, 12-2
Healey James C. 46 Rensselaer, 8-9, 1-3, 6-8
Helme Thomas, McKownville, 8-10, 7-8
Hennessy John V. 872 Broadway, 7-9, 1-3, 6-8
Holding G. H. West Troy
Houston D. W. Cohoes
Huested Alfred B. 77 Eagle, c. Hudson av.
Hull H. V. 56 Jay, Schenectady, 8-9, 2-3, 7-8
Hun Henry, 33 Elk, 8-9½, 2-3, 7-8
Hun Thomas, 33 Elk
Keegan P. J. 139 North Pearl, 8-9, 1-3, 6-8
Kilbourne Albert W. 792 Broadway, 8-9, 2-3, 7-9
La Moure U. B. 90 Hudson av. 8-9, 2-3, 7-9
Lewi Joseph, 94 Westerlo, 8-9, 2-3, 6-9
Lewi Maurice J. 54 Eagle, c. Lancaster, 8½-9½, 1½-3, 6½-8½
Lyon George E. 494 Croton, West Troy, 8-10, 5-7
Marselius W. C. 28 Eagle, 8-9, 2-3, 7-8
Marsh Albert, 197 Lancaster, 8-10, 1-3, 7-8
McAllister John D. Rose, n. Madison av. 8-9, 12-3, 6-8
McHarg M. 62 Hudson av. 8-10, 1-3, 7-8
McNaughton Henry G. 3 South Hawk, 7-11, 3-7
Mereness H. E. 712 Broadway, 1-3, 6-8
Merrill C. S. 23 Washington av. 12-4, 6-7
Merrington Frank J. 236 Clinton av. 9-10, 2-3, 7-8
Miller Howard, 85 Jefferson, 9-10, 2-3, 7-8
Mitchell J. H. Cohoes
Monroe Nelson, Swan, c. George, Green Island, 7-9, 1-3, 7-8
Moore J. W. 92 and 94 Mohawk, Cohoes, 8-9, 1-3, 7-9
Morrill F. D. 90 Madison av. 7-9½, 1-3½, 6-8
Morrow Samuel R. 29 South Hawk, 8-9, 2-3, 6-8
Mosher C. D. 351 South Pearl, 2-4 P. M.
Mosher Frank G. Coeymans, 8-10, 7-8
Munson George S. 138 State, 9-4
Murphy P. M. 66 Jay
Murray William H. 269 Lark, 8-9, 1-3, 6-7½
Nellis T. W. 44 Eagle, 8½-10, 1-3, 6-8
Nellis W. J. 44 Eagle, 8½-10, 1-3, 6-8
Newcomb G. H. 94 Chestnut, 9-10, 1-2, 6-8
O'Leary D. V. 69 South Ferry, 8-9, 1-3, 7-9
Paine H. S. 105 State, 8-10, 6-8
Papen G. W. 89 Schuyler, 8-9, 2 3, 8-9
Peltier G. Upton, Cohoes, till 9, 12-2, 5-8
Perry T. K. 174 Second, 8½-9½, 2-3, 6-8
Peters Samuel, 21 Seneca, Cohoes, 8-9, 1-2, 6-8
Porter Charles H. 55 Eagle, 8-9, 2-3, 7-8
Purple W. L. 46 Second, 9-10, 12-2, 6-8
Reynolds W. H. T. 70 South Hawk, 8-9, 1-3, 7-8
Ritzman Otto, 66 Willett, 8-9, 1-3, 6-8
Ross J. W. Cohoes
Russell Selwyn A. 135 North Pearl, 8-9, 12-2, 6-7
Sabin R. H. 245 Broadway, West Troy, 7-8½, 12-2, 6-7
Sabin William B. 245 Broadway, West Troy, 7-8½, 1-2, 6-7
Scattergood C. F. 10 Bleecker place.
Schutter Wm. L. 28 N. Knox, 8-9, 2-3, 6-8
Seger C. E. Callanan's Corners, 8-9, 1-2, 6-7
Shanks Seth G. 547 Clinton av. 8-10, 1-3, 7-8
Shattuck Joseph W. M. 194 North Pearl
Shiland J. C. 251 Broadway, West Troy, 8-9, 2-3, 6-8
Skillicorn J. H. 324 Hudson av, 8-9, 1-3, 6-7½
Smith Charles H. 246 Washington av. 8-10, 1-3, 5-7
Starkweather R. H. 234 Central av. 8-9, 2-3, 7
Steenberg B. U. No. 1 Ten Broeck, 8-9, 2-3, 6½-8
Steenberg H. W. 24 George, Gr'n Is'd, 7-9, 1-3, 6-8
Stillman W. O. 86 South Swan, 8-9½, 1-2½, 6-7½
Stonehouse Jno. Ben. Albany County Penitentiary
Swinburne John, 57 Eagle, 9-10, 2-4
Ten Eyck A. P. Defreestville, Rens. Co. 7-9, 1-3, 6-8
Thompson John, 5 Canal, 8-9½, 1-2½, 6-8
Townsend Franklin Jr. 188 State, 8½-9½, 2-3, 7-8
Trego T. M. 5 Ten Broeck, 8½-9½, 2½-3½, 7-9
Tucker Willis G. College Building, 2-6 P. M
Ullman G. L. 70 Central av. 8-9, 2-3, 6-7
Van Allen T. F. C. 47 Eagle, 1-4
Vander Veer Albert, 28 Eagle, 8-9, 2-3
Van Slyke E. 320 South Pearl, 8-9, 2-3, 6½-8
Van Vranken A. T. 31 Union, West Troy, 8-10, 1-3, 6-8
Ward S. B. 135 North Pearl, 9-10, 2-3, 6-7
Weidman Felix, Westerlo, 6-10, 6-9
Winne L. B. 72 Livingston av. 8-10, 1½-3, 6-8
Witbeck C. E. 20 Seneca, Cohoes, 8-9, 1-3, 7-9
Woodward Harriet A. 6 Kenmore place, 8-9, 2-5, 6-7

Former members who have died during the year:

W. N. Hays, Albany, d. July 29, 1885, æt. 35
Alexander Shiland, West Troy, d. Oct. 9, 1885, æt. 61
N. L. Snow, Albany, d. Dec. 19, 1885, æt. 46
Joseph W. Riley, Albany, d. Jan. 15, 1886, æt. 24
Warren H. Fowler, Albany, d. Jan. 27, 1886, æt. 33
E. M. Wade, Watervliet Center, d. March 8, 1886, æt. 71
S. O. Vander Poel, New York, d. March 12, 1886, æt. 62
Henry March, Albany, d. May 7, 1886.

ALBANY

MEDICAL ANNALS:

A Journal of the Medical Society of the County of Albany.

Vol. VII. JUNE, 1886. No. 6.

VICE-PRESIDENT'S ADDRESS—THE TREATMENT OF CHRONIC SPECIFIC URETHRITIS IN THE MALE.*

BY O. D. BALL, M.D., ALBANY.

Before announcing the subject of my paper, I should wish, if it is allowable on these occasions, to congratulate the society on the success of its intermediate meetings during the past winter. It is now about ten years, I believe, since I became a member of this society, and in looking back and trying to analyze the general character and interest of the papers presented to this society at that time, and comparing them with the present, we must, I think, congratulate ourselves upon the wonderful advance made in the different fields of scientific medicine, especially in preventive medicine and in surgery. We would hardly expect one of our own members ten years ago to read a paper on, or report a series of cases of, abdominal section. We considered ourselves fortunate, even in the minor operations of surgery, if we saw our incisions heal kindly without suppuration, and surgical fever was looked for then as a thing to be expected in the simplest operations; while now the abdomen is opened, the peritoneum sponged and handled with impunity, intestines are exsected, tumors, and even the uterus or a kidney, removed, the parts readjusted, the patient put to bed and reaction established, without a rise of over one-half or one degree above normal temperature; and, instead of the pinched and deadly pallor of a Hippocratic countenance, your patient meets you with a fresh and trusting face, and probably inquires how long she is to be kept in bed. So, too, ten years ago, small-pox was almost always present in some portion of our city. Now, with an epidemic almost at our very door, whose fearful ravages have carried off thousands of the inhabitants of a sister city, we escape, through the intelligent efforts of sanitary science, with one or two cases in our midst. So, too, with diphtheria and scarlet fever. How few of these cases are reported now, compared with ten years ago, and still we have too much of these latter diseases, and will continue to have them until our board of health impresses upon our boards of education the absolute necessity of disinfecting our school-rooms as often as once in ten days, or, still better, every Saturday, by careful fumigation; for there can be no doubt, as every physician knows, that scarlet fever, measles, mumps and diphtheria are largely propagated through our public schools.

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* Delivered at the semi-annual meeting of the Medical Society of the County of Albany, Tuesday, May 11, 1886.

These advances before mentioned are the natural result of careful study and close observation, and we are truly to be congratulated, not alone in a general way, but because we have here in our own society those men who have done these things. You, Mr. President, are to be especially congratulated upon the interest that has been shown at the several meetings of the society the past winter. Many very interesting and instructive papers have been presented, and while perhaps they have not on all occasions been as fully discussed as they might have been, the fault was because the papers were either too long or there were too many crowded into one evening. These are faults that can and should be remedied. There has been a lack of pathological specimens exhibited, and that has been a growing fault year by year, for which the members of the staffs at the several hospitals are mainly to blame. Our hospitals should furnish no lack of specimens for presentation here, and it is an oversight that it has been neglected heretofore, for they refresh the memory of the older physician and instruct the younger, perhaps more than, or at least as much as, the most carefully prepared papers. Bacteria, and their supposed activity in producing many of the diseases we daily meet, have received a fair share of the society's attention; besides, we have had the privilege of meeting here one of the most careful and intelligent investigators of their life and habits.

Truly, Mr. President, the society moves in cycles of an ever-increasing radius of scientific knowledge and advancement, and it is well if we as individual members advance with it.

The subject of my paper is

THE TREATMENT OF CHRONIC SPECIFIC URETHRITIS IN THE MALE,

which is, perhaps, as troublesome a disease as any of the minor difficulties we have to encounter in our every-day practice, and until quite recently it was a sort of inward hope of mine that somebody else would get most of the cases of that kind to treat, and I think they usually did, sooner or later. But, unfortunately, we cannot close our doors to them, and so, against our will, we have to treat them to the best of our ability and make the best of it, for they are proverbially persistent, and try the patience of both the doctor and the victim to that extent that it is hard to say which in reality is the victim, the doctor or the patient.

By chronic specific urethritis I mean a gonorrhœal discharge from the urethra which has persisted for six months or more, and, so far as the scope of this paper is concerned, it is practically unimportant whether caused by a specific germ or not; nor do I wish to treat of any of the very common complications that present themselves, except to say that the more of these cases I see and treat the more I am convinced that the statement of Otis's that "all cases of gleet are dependent upon strictures either of large or small calibre" is wrong. I am fully satisfied that a fair proportion of these cases have no strictures, at least none that will resist the passage of a sound the normal size of the individual's urethra. Of course, where strictures are found they are to be treated, and the full calibre of the urethra restored, before any other means for checking the discharge can be resorted to; and, after a fair test of the usual methods, gradual dilatation, divulsion and incision, I think the latter incomparably the best, for many reasons, only one of which I will mention, and that is the great saving of time it allows. The location of the most diseased portion of the urethra can, to a very near certainty, be determined by the character of the discharge—perhaps quite as well in that way as by a sound in a sensitive urethra. In a general way, we may say the disease is mainly anterior to the bulb when the discharge is a thick, creamy muco-pus; when of a thin, milky or viscid character, it comes from the prostatic portion mainly; so that noticing the discharge will help us, in a great measure, to determine at what point we should address our remedies, and will, to some extent, aid us in our prognosis as to the time required for the cure of our patient. Other things being equal, the further the disease is situated from the meatus the more persistent, for good anatomical reasons, it becomes; for, as is well known, the inflammation is prone to invade the spermatic ducts, and is particularly persistent in the prostatic sinuses, where these ducts empty, as well as those of the prostate itself.

I do not wish to prolong this paper, and, without further considering the anatomy or pathology of the disease, I wish to call your attention to a partial analysis of fifteen cases treated by the the direct application of an ointment of zinc oxide to the diseased membrane. I have applied the ointment upon an ordinary olive-pointed bougie, which I select with special reference to the size of the organ to be treated. The instrument should not be too large, for it is neither necessary nor desirable to stretch the mucous membrane any further than just sufficient to smooth out and straighten its folds. For instance, when the penis measures 3½ inches in circumference, I use about a No. 20 French, instead of No. 35, according to Otis's rule. I have found when the full calibre was used that it caused unnecessary pain, and, I have thought, prolonged the treatment.

Before resorting to the zinc oxide treatment, I had, I suppose, used nearly every remedy ever recommended for the disease under consideration, with about the same success that others obtained. There are a few of these remedies I wish to mention, because the faith of the profession is more or less pinned to them. Nitrate of silver is undoubtedly the most useful of all the drugs heretofore recommended for this difficulty. I have used it both as a wash and as an ointment, and have more than once been obliged to empty the bladder with a catheter after using it. Under the most favorable circumstances it is a painful remedy, and since using the zinc oxide I have seen no occasion to resort to it. The same can be said of all the other caustics. I had hoped something from iodoform, but I cannot say that I have ever seen any benefit from it, and its disgusting smell precludes its use in most cases. Tannic acid will lessen the discharge in most cases, but its action is not curative. It is best used as an ointment. The corrosive chloride of mercury I have not had the courage to try as an ointment. I once used it as an injection (1 to 1,000)—at least that was what I ordered—and I don't belive that man has ever forgiven me yet, and he is of rather a mild and forgiving disposition. It may be very useful in the acute stage of the disorder, and undoubtedly is, but it is too painful and irritating for the class of cases under consideration. I never have experienced any trouble in the use of the zinc oxide; on the contrary, the patients have always expressed themselves as feeling more comfortable after its use, and there has been, in each of the cases I have used it thus far, a steady improvement from the first. I have tried an ointment of calomel, with no special results, except it seems to make the parts more comfortable for a time, and perhaps lessen the discharge also, but it has never been curative in my hands.

Of the fifteen cases, ten had contracted the disease six months or more before treatment. One had contracted the disease five years before, and was pretty nearly a total wreck, unable to pass a drop of water unaided, and with a discharge that seemed to be the product of a new infection. Of course, there were strictures, which were incised, and he was furnished with a bougie and ointment and instructed how to use them. This was about three months ago. He did not make a rapid recovery, nor was it to be expected he would, but he is now free of the discharge and comparatively happy. Two had had the disease over a year, and two could not say just how long since they contracted it—had had more or less of it for six or eight years. It seems perfectly wonderful to me that these men who are constantly acquiring the disease escape with so little trouble as they often do. One of these old chronic cases had a urethra that passed a No. 36 F. as easily as an ordinary man will a No. 15. In fact, it almost seems that these neglected cases often have less stricture trouble than those who endeavor to get rid of their disease and take better care of themselves generally.

The average time of treatment of all the cases was a little over four weeks. The longest any one case was under treatment was eight weeks; the shortest was ten days, except one case who never saw any discharge after the first application which I made for him in my office.

Of course, something depends upon the manner of preparing the ointment, as well as in its application. The formula I have used is as follows:

℞ Zinci oxidi	ʒ iij
Adipis	ʒ iij
Cerati simp.	ʒ ij

M.

When thus prepared it will adhere nicely to the bougie and yet be soft enough to apply itself to the urethral membrane. The method of using is as follows: I fill the constricted portion of the bougie out evenly and as smoothly as possible with the full calibre of the instrument, and if the parts are sensitive I lubricate with vaseline; if they are not, I use no other lubricant than the ointment. The bougie should be carried down to the prostatic portion of the urethra as rapidly as possible, and then, after rotating it in both directions, slightly withdraw it and push it back again, in the hope that some of the ointment will be forced into the swollen mouths of the seminal and prostatic ducts. In the same manner the remaining portion of the urethra should be treated, giving plenty of time for the ointment to be melted and left in contact with the diseased membrane. The patient should have emptied his bladder previous to the application and should be instructed to refrain from doing so again as long as possible. The applications should be made at least twice a day—in the morning and the last thing before retiring. He should also be instructed in the importance of keeping his instrument clean.

None of these cases had any marked enlargement of the prostate, and I very much incline to the opinion that the means recommended will avert that condition if employed sufficiently early.

I have no hope that the zinc oxide will cure every case, nor do I think it applicable to cases that are complicated, but I think that simple gleet will succumb to it more rapidly than to any other means I have yet tried, and that there will be many times less danger of resultant stricture by this course of treatment than by the old treatment of caustic applications.

Frozen Milk in Fevers.—Dr. E. G. Janeway, acting on a suggestion from a colleague practicing in the country, has given frozen milk to patients whose stomachs did not tolerate ice-cream, and speaks highly of its use in fevers.—*N. Y. Medical Journal.*

THE UTILITY OF THE VAGINAL DOUCHE, WITH DESCRIPTION OF IMPROVED APPARATUS.*

BY H. S. PAINE, M.D., ALBANY.
(Albany Medical College, 1881.)

I. The Condition of a Patient Requiring the Use of the Hot Water Douche.

Symptoms of Uterine Congestion and Inflammation.—A large proportion of patients suffering from disease of the pelvic organs experience a sensation of weight at the lower part of the abdomen; a "dragging-down feeling;" a soreness and fullness in the same locality; pain in the back, often extending upward the whole length of the spine to the head, and downward to the knees and feet; there is often leucorrhœa, and more or less irritability of the bladder, causing frequent and painful discharge of urine. The parts are sensitive; the uterus and its appendages tumefied and frequently displaced, being either too low down in the pelvis (prolapse), or tilted forward (anteversion), causing irritable bladder; or backward (retroversion), obstructing the circulation in the hemorrhoidal veins, usually resulting in piles and the formation of pile tumors.

These symptoms are always aggravated by exercise, or even by sitting down, the only relief being obtained from a recumbent position. They indicate a condition which nearly always supervenes upon uterine disorder, viz., chronic engorgement of the pelvic organs.

Usually this condition has been allowed to go on unrelieved until the circulation of blood in the pelvis and its organs has become very sluggish; "the veins becoming gradually overstretched, finally lose their tone to such an extent that almost a stasis of the blood takes place; at least to such a degree that we may compare the circulation in the pelvis to that existing in a marsh saturated by a stream which is of about equal capacity on entering and leaving it, but maintaining a condition approaching stagnation between the two points."† When the tone and elasticity of the vessels are gone, engorgement and permanent enlargement, with increased weight and augmented secretion, follow and remain.

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* Portion of a paper read before the Medical Society of the County of Albany, Tuesday, May 11, 1886.

† The quotations noted are from T. Addis Emmet's Gynecology.

How these Symptoms and Conditions are to be Relieved.—Efforts on the part of the physician toward relieving this distressing condition must be made with a view of (1st) diminishing the flow of blood to the part, and (2d) enabling the distended blood-vessels to empty themselves, in order to awaken sufficient contractile power to again contract normally on their contents, thereby preventing a recurrence of the disease.

This is accomplished measurably by relieving the womb of the pressure of the superincumbent organs, by requiring the patient to maintain, one or more hours daily, a recumbent position, and in corpulent persons by suitable external abdominal supporters and bandages. These simple measures alone, however, are seldom sufficiently effective. They may, if persistently resorted to, enable the blood-vessels to regain their elasticity, but are usually too slow. Other measures are the application of healing medicines to the neck of the womb and into its cavity, electricity, and the regular and frequent application of hot water. "But no permanent improvement can take place in the local condition until tone has been restored to these vessels, so that the circulation may be as little impeded in the pelvis as in any other portion of the body. We may by rest, or by restoring the uterus to its proper position, lessen its size, and by the same means, aided by local applications, at length heal an erosion, as well as lessen the discharge from the uterine canal and vagina. But the case will relapse, and at the end of a few weeks or months after the patient has begun to exercise, the original condition will have been reproduced. It is only by exciting reflex action that the nerves accompanying the vessels will cause their contraction, and with increased action on their part, the necessary tonicity will be restored by improved nutrition."

II. DESCRIPTION OF THE ACTION OF HOT AND COLD WATER.

The Action and Re-action following the Application of Hot and Cold Water.—Either cold or electricity would act more promptly in causing contraction than heat, unless applied at a temperature that would destroy the parts, for relaxation and increased congestion are the immediate effects of heat, and its beneficial action can only be obtained by prolonged application, causing a *re-action* and *contraction.* "The capillaries are excited to increased action, and as they contract from the stimulus of the nerves, the tonic effect extends to the coats of the larger vessels, their calibre in turn becomes lessened, and with this approach to healthy action the congestion is diminished."

One of the best illustrations of this fact can be observed by noting the effect produced by hot water on the hands of a washerwoman. At first they become red and swollen from increased capillary circulation, but in a short time this is followed by a markedly blanched and shriveled condition. On the contrary, let the hands be placed in cold water, and the primary effect is a shriveling of the skin and blanching of the surface, caused by the contraction of the vessels due to the stimulating effect of the cold. This, however, is immediately followed by a very positive and energetic reaction. A larger quantity of blood returns than was expelled; an approach to congestion occurs, and the normal appearance and condition of the parts does not return for hours. As this is true of every portion of the body, we learn as an inevitable conclusion that *heat produces dilatation followed by contraction,* with relief of congestion; while *cold causes contraction, and then congestion,* a result very undesirable in all cases. Hence, by hot water vaginal injections we gradually bring about and restore the required contraction and tone to the pelvic vessels.

"The use of hot water vaginal injections is equally beneficial in all those conditions which constitute the various forms of disease in the female organs of generation, and which are amenable to any treatment other than a surgical procedure; and equally so whether the congestion be venous or arterial."

How Hot Water should be Used in Order to Obtain these Beneficial Effects.—The value of the curative properties of *hot water* has not been fully estimated, chiefly on account of the difficulties hedging about its thorough administration.

The abnormal condition being an undue distention of the capillary vessels within and surrounding the pelvic organs, it is obvious that a standing or sitting posture effectually prevents a complete and easy flow of blood therein. While maintaining a sitting or upright posture the return of the venous blood from the pelvis and lower extremities is retarded by the force of gravity, as also by a portion of the weight of the intestines within the cavity of the abdomen. It will be perceived, therefore, and experience has shown, that in order to obtain the full benefit derivable from the use of hot water injections the patient should maintain *a recumbent posture, with considerable elevation of the hips.*

While hot water vaginal injections will prove an invaluable aid in the treatment of all conditions of uterine diseases, not the slightest advantage is received from them when administered with the patient in an upright position, or, as is the usual method, while seated over a bidet; for, given thus, the water does not dilate the passage, but returns along the nozzle of the syringe. When given in the upright or sitting position, the effect is merely to wash out the vagina without otherwise exercising more than a very limited influence. When the patient is lying on the back with the hips elevated, the weight and pressure of the pelvic viscera will be removed from the uterus, the overdistended veins of the uterus and pelvis will be emptied by gravity, and the vagina will become distended by the weight of water, since only the surplus can escape into the douche pan beneath. Hot water applied at this time comes in contact with the os uteri and every portion of the vaginal mucous membrane, under which the capillaries lie, causing the vessels to contract still more, thus reducing the pelvic circulation, for a time, nearly, if not quite, to a normal condition. By repeatedly stimulating this contraction we will eventually secure a normal condition. "No plan of treatment could be more rational, or appeal more forcibly so the good judgment of every one."

"The vessels going to and from the cervix and body of the uterus pass along the sulcus on each side of the vagina, and their branches inclose the vagina in a complete network. The vessels of the fundus, through the veins of which the blood flows to the liver and back into the general circulation, communicate freely, by anastomosis, with the vessels distributed to the body of the cervix below. If, then, we are able to cause the vessels of the vagina to contract through the stimulus of hot water, we can, directly or indirectly, influence the whole pelvic circulation. That this is true can be shown by vaginal examination after the proper use of the douche apparatus. The mucous membrane is blanched, and the whole canal is contracted, as though a strong astringent injection had been used.

"This remedy is not to be considered a 'cure-all,' but one of the most valuable adjuvants, under all circumstances, to other means. Yet, so beneficial is its use, except in displacements of the uterus, that I believe more can be accomplished in the treatment of the diseases of women by this agent, and a carefully regulated plan of general treatment, than by all other means combined."

III. Requirements Desired in a Douche Apparatus.

For a long time the curative value of hot water vaginal injections has been appreciated by the medical profession at large, and the need of a properly constructed douche apparatus has been particularly felt by those having charge of the treatment of cases of uterine and pelvic diseases, both in hospital and private practice.

It is an easy matter for a physician to recommend the thorough and prolonged use of hot water, but how this is to be accomplished has been the problem that has taxed the ingenuity of practititioners and patients.

In order to secure the best results, a patient *must be made comfortable;* a large amount of hot water must be used, since a small quantity cools too rapidly; the hips must be elevated, to relieve the weight of the abdominal viscera from the uterus, and allow the action of gravity to empty the engorged and distended vessels of the pelvis; the apparatus should be easy of adjustment under the bed-clothing, and require no change of position but the necessary elevation of the hips, thus avoiding the old method of moving the patient to the edge of the bed, and the unnecessary lifting, and exposure of the limbs to cold. All this is accomplished by means of a sufficient support to free the entire back and hips from strain, and not subject the patient to either exposure from cold in the room or from a damp mattress, due to overflowing of the receiving basin or to inadequate means for conveying away the drip as it flows from the patient.

IV. The "Perfection" Douche Apparatus.

This combines several original qualities not furnished by any other instrument:

First. Sufficient length and width of the foundation to furnish adequate support and prevent settling in the bed, thereby avoiding liability to overflow of the receiver.

Second. Sufficient length of the inclined plane.

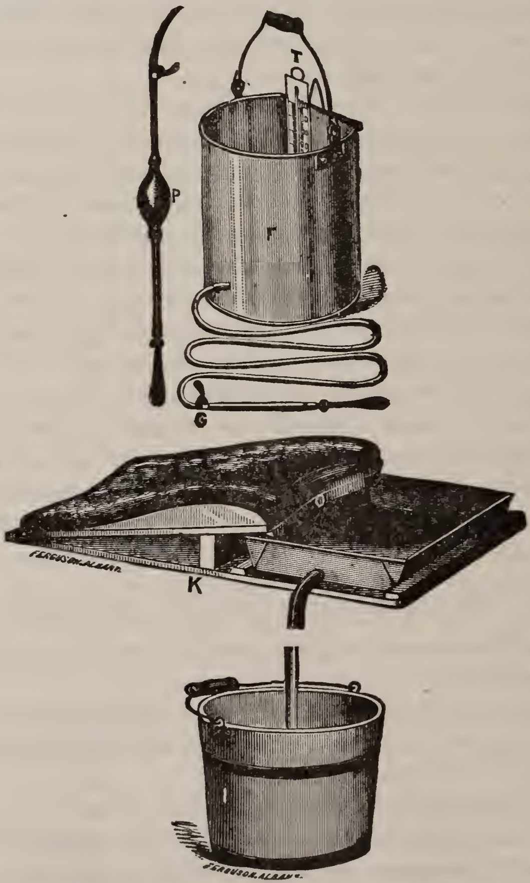
Third. The inclined plane, in addition to its length, has three valuable and necessary curves. (1) The upper surface it is convex from end to end, to fit and comfortably support the body of the patient from the hips to the shoulders. (2) A concavity from side to side, to afford steadiness to the patient and give a feeling of security, shonld the rest tilt to either side. (3) a concavity at the forward end to fit the hips and more readily convey away all the drip into the basin.

Fourth. The receiving basin can be readily removed, cleansed and replaced.

Fifth. The apparatus can be used on either side.

Sixth. It has a movable cushion, protected at its concave end by a narrow strip of rubber cloth.

Seventh. It can be used as a bed-pan, if desired, by means of a duplicate basin having no outlet.



THE "PERFECTION" DOUCHE APPARATUS.

Eighth. Its construction is so simple that there is little liability of its getting out of order.

Ninth. The fountain pail has (1) a curved outlet to prevent the rubber from being broken by the sharp angle of a straight outlet and the heat of the water combined. (2) A flat back, with (3) a loop to hang it up against a flat surface when desired. (4) A thermometer attachment and a thermometer, with which the exact temperature desired can be obtained.

Tenth. The discharge pipe from the fountain is sufficiently small to afford a continuous flow ten or fifteen minutes, the time being shorter the greater the elevation of the fountain, which fountain, on being refilled, if need be, two or three times, provides for the constant application of hot water from twenty to forty minutes.

Eleventh. This discharge pipe has a bulb adjusted thereto, in order that the stream can be broken and applied in forcible jets when desired, or allowed to run in a continuous flow. Moreover, this discharge pipe and bulb can be used as an ordinary syringe, being firmly attached to a large reservoir of water. A hard rubber tip is used; metal tips are liable to become too hot for the comfort of the patient.

Twelfth. Experience has shown that in many cases the overflowing of the receiving basin is due to too small an outlet tube, therefore a very large one has been provided.

Thirteenth. Electricity can be applied through the column of hot water to every portion of the vagina and os uteri, by placing one electrode in the fountain pail and the other on the patient.

V. Full Directions for the Satisfactory and Thorough Application of the "Perfection" Douche Apparatus.

First. See that the receiving basin is properly adjusted to its place; that is, one edge behind the cleat underneath the forward end of the elevated rest. This is essential in order to convey all the drip, as it passes from the patient, into the receiving basin.

Second. See that the apparatus is placed as nearly level as possible; and if over a soft mattress, see that when pressed down by the weight of the patient the discharge pipe is not pushed upward so as to prevent an outflow of the water.

Third. See that the body of the patient rests so far forward on the elevated portion that the hips will be suspended immediately above the receiving basin. The thighs *must not rest* on the elevated portion. The elevated part is designed to support the body from the small of the back to the shoulders. The thighs must be placed well forward over the basin; then the drip will necessarily be collected therein. If any fluid passes along the back to the clothing, *it is because the hips are not far enough forward.*

Fourth. To obtain the full benefit of the hot water, the application must be continued from twenty to forty minutes. If the fountain, which holds two gallons, is placed two feet higher than the patient, its contents will pass through the tube in ten or fifteen minutes. If placed still higher, the force will be increased, and the fluid will pass out in shorter time. The fountain should be refilled two or three times at each application. The temperature of the water should be 100° to 105° at first; at subseqnent applications it may be increased to 110°, which is sufficiently high at any time and in any case; but the temperature must be maintained at the highest point by the addition of hot water from time to time.

If it be desired that the pail should hold water warmer than the registering figures on the thermometer, the thermometer should be removed before the mercury reaches the end of the stem, to prevent its breaking.

The metal shut-off should be left open when the fountain is not in use; if continually closed, its pressure will destroy the rubber tube.

"As the patient improves in health, the quantity of water for the injections may be lessened, and the temperature gradually lowered to about 60°, and then discontinued. But for some months it would be prudent for a few days after each monthly period to resume the injections at a degree or two above blood heat, and also have recourse to them whenever their use should seem indicated to counteract the effect of some imprudence.

"To the injection (generally to the last) may be added glycerine, chlorate of potash, chloride of sodium, carbonate of soda, borax, Castile soap, sulphate of copper, muriate of ammonia, brewer's yeast, permanganate of potassa, carbolic acid, or any other remedy which may seem to be indicated."

"The hour of bed-time is generally the best in which to seek for the beneficial effects of hot water on the reflex system, in allaying the local irritation; for prolonged vaginal injections, at a high temperature, will often, when given by an experienced hand, act with more promptness than an anodyne in allaying the nervousness and sleeplessness of a hysterical woman. I have frequently known a patient, after being well rubbed and having received an injection, to fall asleep before the nurse had completed the process, and to be so overcome with drowsiness as to be but little disturbed on removing the bed-pan.

"In rare instances, and from a condition I am unable to explain, cases are met with where a sense of weight and an uncomfortable feeling are experienced about the pelvis after an injection of water at the usual temperature. In some instances so much disturbance resulted that occasionally I was obliged to abandon its use. But I have long since ascertained that the injection is well borne at a lower temperature, generally about 95°, and that after a week or two the temperature can be gradually increased.

"The vessel of hot water is placed on a chair by the bedside, and the nurse passes the nozzle of the syringe into the vagina, over the perineum, directing it along the recto-vaginal wall until it has reached the posterior cul-de-sac.

"The water must be thrown in at first very carefully, until the vagina has become distended. At the completion of the injection the vagina can be emptied by depressing the perineum for a few seconds, with the finger on the nozzle of the syringe before withdrawing it, and as the bed-pan is removed a napkin should be placed against the vaginal outlet to absorb any water which may have been retained."

This apparatus has been found of service in lying-in practice, also as a means for lessening local congestion and inflammation before and after operations.

THE TREATMENT OF WHOOPING-COUGH WITH ILLUMINATING GAS.—Dr. W. T. Greene (*Med. Press*, April 7, 1886; *Therap. Gaz.*, May, 1886) suggests an easily available improvement on the old plan of sending children on visits to the gas-works. His plan is to attach a piece of rubber tubing to a burner, the tubing being long enough to reach the floor. The gas is turned on just enough to make a perceptible odor, and the child is to inhale it for a few minuts at a time as often as convenient.—*N. Y. Med. Journal.*

ABSTRACTA.

Diagnostitial Laparotomy.—Dr. Christopher Johnston, of Baltimore, at the seventh annual session of the American Surgical Association, held at the Army Medical Museum reading-room, Washington, D. C., April 28, 29, 30 and May 1, 1886, read a paper at the afternoon session of Wednesday, April 28, entitled "Diagnostitial Laparotomy."

This operation is as ancient as our race, but in early times was always practiced on the cadaver. The *lex regia* of Numa Pompilius required it to be performed upon any woman who died in the twenty-seventh week of pregnancy, unless reliable signs showed that the fœtus was dead. The first operation on the living subject was probably performed about the year 1600.

The rapid advance of abdominal surgery now demands the attentive consideration of surgeons, and requires the expression of opinion as to the position of the line limiting interference in certain classes of cases. The labors of gynecologists and surgeons have greatly lowered the mortality of laparotomy for ovariotomy and hysterectomy, but the pathological possibilities of the male and female abdomen still constitute many difficult problems which the knowledge and zeal of surgeons are constantly striving to solve.

The question arises, How shall the seat of the pathological change be reached? The answer is, Laparotomy, which makes the diagnosis positive in cases of doubt, and is preliminary to other operations which may be required. If the surgeon has no right to refuse to give air to a fellow creature becoming asphyxiated from obstruction in the air passage, has he the option of refraining from surgical interference when the *primæ viæ* are obstructed in their functions? The answer to this question hangs first upon the diagnosis, sometimes upon the record of the past, and not infrequently upon the wise boldness of the surgeon. The propositions, then, are: (1) That for abdominal surgical affections all possible operations ought to be attempted after the establishment of a precise diagnosis; and (2) that when a just diagnosis cannot otherwise be reached, it may and ought to be sought out by an exploratory incision. The mortality of abdominal incision without complication is low. It is unfair to compare dissimilar operations involving the peritoneum, for some have been so frequently performed that new methods and resources have been applied to them.

A great consecutive mortality following a surgical procedure in no wise determines the want of value of the operation, while most cases recovering are to be considered a certain gain.

The record with regard to diagnostitial laparotomy is very brief, for as a rule, when the surgeon approaches the case, the diagnosis is already nearly positive. The gravity of the operation is largely determined by the time at which it is performed. The abdominal incision intentionally diagnostitial is fraught with so little comparative ill consequence that its high value or necessity may be fairly claimed as an established and proper aid to diagnosis Of all operations involving laparotomy, those involving the uterus and its appendages probably fill the largest place. Next we have those involving the alimentary tract.

Speaking of the Cæsarean section, the speaker said that comparing the mortality of this operation in former days with the mortality of the Porro-Müller operation, we find that while shock and other dangers are greatly increased in the modern operation, the mortality remains about the same. The old operation is, as a rule, done under objectionable surroundings by inexpert operators, while the modern operation is done by experts with the best surroundings. We have yet to see what the old operation will accomplish when the same safeguards are thrown around it as are given to the newer operation.

Besides being a justifiable operation, abdominal incision becomes the bounden duty of the surgeon in a great variety of instances. Fenestral exploration gains in facility and loses in danger by frequent repetition; and it might eventually render the explorative laparotomy unnecessary.

When is exploratory laparotomy called for? It should be stated that to a certain extent every laparotomy is diagnostitial. Without establishing unnecessary groups, two great classes in which exploratory laparotomy is demanded or permissible are to be recognized: First, all sorts of cases in which the diagnosis can not be made without its aid; second, all those cases in which a diagnosis having been made, no definite line of operation can be mapped out and no abandonment of active measures be entertained or justified. As in these cases laparotomy holds the key in all cases of doubt, both as to what is the matter and what is to be done, it should be called upon to surrender that key. In intestinal cases, the early operations are those which save life the oftenest, but abandonment ought not necessarily to follow delay in invoking the surgeon's aid.

The paper was discussed as follows:

Dr. A. Vander Veer, Albany: There can be no doubt that experience shows us that simple incised wounds of the abdomen without injury to the abdominal organs will usually heal without difficulty even if left to themselves. The mortality is very slight indeed; even when the injury is more serious, recovery often follows. The cases which give us anxiety are those in which the bowel is injured and its contents escape into the abdominal cavity. These die inevitably if nothing is done. In these cases laparotomy should be performed. This course is often opposed by the friends of the patient and often by the attending physician. We have much to do in the direction of teaching the profession and the public the importance of early operation in these cases. Cases were cited of gun-shot injuries of the intestine and of rupture of the intestine produced by external violence in which the operation might have saved life if it had been permitted by the friends of the patient. The operation, as a rule, will not be permitted until the patient is in collapse, and it is then too late. If possible, the operation should be done in such cases in which it will prove successful, so that the surgeon may have an argument in favor of his recommendation, and the masses must be educated to the necessity of laparotomy in the cases referred to. This operation should be done more frequently in the future than in the past.

Dr. Johnston presents points of great interest and importance. As regards the mode of operation, the incision in the median line is by far the best. In some cases it would be impossible to reach the disease by any other incision. In the closing of the wound, some recommend several lines of sutures, uniting the different layers of tissue separately. I do not believe that this is any advance on the old method of using sutures including all the layers of tissue. Where there is great distention of the bowel in intussusception, the discovery of the seat of trouble is greatly facilitated by a procedure which I have seen Tait adopt: Opening the distended coil of intestine, permitting the gas to escape, and then suturing intestine in the abdominal wound.

Dr. Ewing Mears, Philadelphia: In considering diagnostical laparotomy, I should arrange the subject in this manner: In the first place we should use external manipulation; second, internal examination, where this is possible; third, aspiration; and finally, laparotomy. I regard laparotomy as much the more serious of all these methods. In this discussion, the subject of laparotomy as a means of treatment does not call for consideration. The more experience I gain, the greater is my conviction that the abdominal cavity should not be opened without due consideration. Death is a severe penalty to pay for the perfection of the diagnosis. We have already learned a great deal in regard to methods of diagnosis by external manipulation. The tendency at the present time seems to be in favor of opening the abdominal cavity, rather than by cultivating that essential skill by which diagnosis may often be made without resorting to operation. Tait's assertion that opening the abdominal cavity is a matter of very little consequence has led many of the younger members of the profession to perform this operation without due consideration. I have at present under observation a case in which I have made out the existence of an obscure abdominal tumor, and determined that she is suffering possibly from carcinoma. I have not felt it my duty to perfect the diagnosis by opening the abdomen. I have carefully watched for symptoms indicating suppuration, when I should operate, not for diagnosis, but for relief. Having exhausted other methods of diagnosis, I agree with Dr. Johnston that, if the patient's life depends upon it, we should open the abdomen. I believe that in intestinal obstruction the abdomen should be opened, and that many lives have been lost by want of courage on the part of the surgeon. There is no question as to the duty of the surgeon in the case of gunshot wounds of the intestines.

Dr. Charles T. Parkes, Chicago: I think that the paper insists upon the necessity of exhausting all other methods of diagnosis before resorting to laparotomy. In regard to the size of the incision, I think that makes very little difference so far as the final recovery is concerned; but where the incision extends above the umbilicus, recovery is slower, and attended with more inconvenience. In the cases which I have seen where post-mortem followed, there was no evidence that the abdominal incision had any thing to do with the fatal issue. several years ago I was called to see a case, of nine days' standing, in a state of extreme collapse. The patient was put to sleep and the abdomen opened. A small cyst ruptured beneath the fingers, and a quantity of offensive pus escaped into the abdominal cavity. This patient recovered. In such a case, the best diagnostic skill could not determine the cause of the obstruction. In the case of a child, eighteen months of age, in which the operation was declined, an intussusception of the small intestine was found at the post-mortem, which was without adhesions and could readily have been removed.

The abdominal opening should, I think, be made in the median line. I think that I have seen cases in which death has followed from the fact that the incision was not thus made, the surgeon being satisfied with enlarging the original wound. In regard to closure of the wound, I think that the simple suture, going through all the tissues, has been followed by such good results that we need use no other. Where there is much distention of the intestine, I think the method by opening the bowel is the best. I have used the exploratory needle on several occasions, but it is necessary to make a number of punctures. In two instances I have found extravasation of fecal matter through these punctures.

Dr. McLain Tiffany, Baltimore: During the last year I have met four cases of what I believed to be intestinal obstruction. In all four laparotomy was proposed. Two refused, and both of these died. Two accepted, and one of these recovered. The case that died was that of a woman, aged seventy-three, in whom the obstruction had lasted seven days. The intestine was enormously distended, and, in the examination, ruptured, with the escape of gas. After this it was extremely easy to find the seat of constriction. I think the shock will be less if the intestine is emptied. In regard to the time at which the operation should be performed, I think that no positive rule can be laid down; it must depend upon the acumen of the physician who sees the case. I agree with the speaker as to the great value of laparotomy as a diagnostic operation. It is not possible for any human being to recognize through the abdominal walls the manifold conditions of the organs present.

In regard to pistol wounds of the abdomen, it frequently happens that the intestines escape injury, and in these cases it is a question when the operation should be done. The opening of the abdomen will, I think, not do much harm. It is also very desirable that there should be in hospitals special rooms devoted exclusively to this class of operations.

Dr. J. F. Thompson, Washington: I wish to record two cases of laparotomy for the purpose of diagnosis. A woman, aged 35 years, had the history of an abdominal tumor lasting for several years. It presented the appearance of an ordinary ovarian tumor, with the exception that it had two sinuses communicating externally. After frequent examinations by various surgeons, it was decided to make an exploratory operation. One of the sinuses was traced back to the peritoneum without reaching any satisfactory explanation of the tumor. The peritoneum was then opened and the finger introduced, but no tumor in the cavity could be felt. Towards the abdominal wall a mass, apparently imbedded in the tissues, could be distinguished. The wound was closed, and the patient recovered from the operation. The patient subsequently died, and the post-mortem showed that the tumor was an enlarged spleen which had fallen down below the umbilicus and become attached to the abdominal wall.

The second case was one of apparently freely movable tumor in the right hypochondriac region. It was accompanied with excruciating pain. Operation was not recommended, but the woman and her husband insisted that something should be done, and, therefore, after keeping her under observation for some time, the abdomen was opened. The tumor, probably carcinomatous, was found to involve the transverse colon, which ran directly through the mass. There was also an attachment of the growth to the liver. The abdomen was closed, the patient recovered from the operation, and is still living.

Dr. W. H. Carmalt, New Haven: Some time ago I was requested to operate in a case of intestinal obstruction, but the collapse was so great that I thought it would not be proper to do so. Within thirty-six hours the patient died; the post-mortem showed the obstruction was due to a band of adhesion. If the operation had been performed early, the patient might have recovered. I think it important to relate unsuccessful as well as successful cases.

Dr. Christopher Johnston, Baltimore, in closing the discussion, said: There is a certain amount of hesitancy on the part of surgeons in regard to operating in cases of abdominal injury, on account of the people and on account of juries. To overcome these objections it is necessary to educate the public to the true state of affairs. In those cases where the bowel is opened, laparotomy leads to the seat of disease, and if any thing can be done, we are then able to do it. I am happy to find my opinions supported by so many of the able minds of the profession.—*Weekly Medical Review*, St. Louis, May 15.

TRAUMATIC ANEURISM OF THE INTERNAL CAROTID ARTERY. —Dr. T. F. Prewett, of St. Louis, on the morning of Friday, the third day of the seventh annual session of the American Surgical Association, read a paper with the above-named title.

The speaker first referred to those cases of spontaneous aneurism of the internal carotid artery which are found in literature, and the frequency with which this lesion has been confounded with cyanche tonsillaris. He had been unable to find more than one reported case of traumatic aneurism of this artery. This was reported by Dr. William T. Biggs, of Nashville. The aneurism in that case followed stab wound, and was operated on successfully.

Dr. Prewitt then described the following case: E. J. Colored, seventeen years of age, was shot by her husband early in January, 1885. The weapon used was a revolver carrying a No. 32 ball. The shot was fired at a distance of two feet, and entered the cheek over the malar bone, ranging backward. There was no wound of exit. The bleeding was controlled by compression. There was hemorrhage from the ear at the time, and this recurred on two or three occasions. For some time after the accident the patient stated that there was some hemorrhage from the mouth and nose on rising in the morning. There was some swelling at the time, which gradually increased until April the 2d, when she was seen by the speaker. It then projected into the pharyngeal cavity and rested against the uvula and extended externally from the anterior petrous portion of the temporal bone to the hyoid bone. The swelling pulsated in every direction and gave thrill and bruit. Immediately after the accident there was paralysis of taste and of the right side of the tongue. This continued. Pressure upon the carotid artery arrested the pulsation in the tumor. There was no difference in the pulsation of the two temporal arteries; the pupils were equal and responded normally to light. There was persistent headache, with sounds in the ear, which was increased by lying upon that side. The voice was greatly interfered with, owing to paralysis of the right vocal cord. The appetite was poor and the patient emaciated. She was unable to swallow solids, and fluids regurgitated.

With this history, and with these symptoms, it was decided that there was an aneurism of the internal carotid artery, and that the vessel had been wounded near the carotid foramen, for nowhere else are the artery and nerve in such intimate connection.

It was determined to at once ligate the common carotid artery. The usual incision was made, and the dissection continued until the artery was exposed. A silk ligature was passed from behind forwards. The vessel was then lifted, to be sure that the pulsation was arrested before the ligature was applied. Finding that it was, the vessel was then tied. The pulsation was at first arrested, but in a few minutes it could again be felt. In the absence of all precedent, it was concluded to extend the incision upwards in front of the tragus and determine the feasibility of opening the sac and tying the distal end. This was a forlorn hope, for the diagnosis was that the aneurism was seated just external to the carotid foramen. An incision was then made below the ear and extended upwards back of the ear. A cautious dissection revealed the fact that the sac filled all the space between the mastoid process behind and the condyles and ramus of the jaw in front. It extended to the base of the skull, to which it was closely adherent. It was therefore impossible to reach the artery in that direction. Further attempts were abandoned, the wound was closed, a drainage tube inserted and an antiseptic dressing applied. On the eighth day there was some hemorrhage from an opening near the angle of the jaw. This was repeated, and she spit up some blood on the following day. Examination showed a little coagulum at the angle of the jaw, which was removed and the left forefinger thrust into the opening. No coagulum could be felt within the sac. The attempt to detect the entrance of the artery with the finger failed. In order to avoid the hemorrhage which would follow the removal of the finger, the sac was stuffed with lint treated with iodoform; this controlled the bleeding. The patient gradually became weaker, and died on the twenty-fifth day after operation, from exhaustion. Ten days after the sac was stuffed, epileptiform convulsions involving the facial muscles and the flexors of the forearm and hand appeared. This continued at intervals until her death.

The post-mortem showed the ball in the posterior part of the sac. The opening of the carotid artery was found close to the carotid foramen, and seemed blocked up with clot. The blood-vessels of the membranes of the brain were congested, particularly on the right side The inferior petrosal and lateral sinuses were filled with thrombi up to the trocular Herophili.

The differential diagnosis of aneurisms of the internal carotid artery from those of other arteries in this situation was then considered. As regards operation in this case, compression and ligation were considered, but compression was rejected on account of the urgency of the symptoms. The patient was not a suitable one for this mode of treatment, being ignorant and irritable and unfitted to endure the annoyance of this method of treatment. Neither were skilled attendants available.

The paper was discussed as follows:

Dr. J. Ford Thompson, Washington: I have never seen a case of aneurism of the internal carotid artery, but I should think that the diagnosis would not be especially difficult. The bulging of the swelling into the pharynx is characteristic. The case also goes to show the uselessness of ligation of the common carotid artery for the cure of aneurism of the internal carotid artery. It would perhaps have been better if the operation of Syme had been performed, or, if necessary, the suggestion of Guthrie might have been carried out; that is, to make a section of the ramus of the jaw, separating both sections of bone, so as to afford more room for dissection. As this lesion is followed by certain death, my opinion is that it is the duty of the surgeon to perform the old operation, cutting into the sac and ligating the vessel at both ends.

Dr. William T. Briggs, Nashvilie: The case which I reported at a previous meeting of the association was that of a young man stabbed in the neck. Five weeks later the patient presented himself at the clinic with a swelling of the neck presenting all the evidences of aneurism. I considered it to be a small aneurism of one of the branches of the external carotid artery that could be readily reached and ligated. I made an opening large enough to permit the introduction of the finger, and at once found that the condition was more serious. The hemorrhage was controlled by stuffing a sponge into the sac, and the common carotid ligated. When the sponge was removed the hemorrhage was as free as before. The opening in the sac was then enlarged, the opening of the artery having been found and controlled by the finger. The vessel was then hooked up and a ligature applied above and below the sac. The patient recovered, and is still living in perfect health. I think that in all cases where it is possible the operation of Syme should be employed.

Dr. D. Hayes Agnew, Philadelphia: About three years ago, a woman presented herself at the University Hospital, with a tumor as large as an orange just beneath and behind the angle of the jaw. There was also a projection into the pharynx. This tumor had grown slowly for eight months, and was attributed to a blow on the side of the head. I considered it a case of aneurism of the internal carotid above the omo-hyoid muscle. The pulsation was diminished, but it could still be felt. I attributed this to the communication with the external carotid artery. I then tied the superior thyroid and the lingual. This stopped all pulsation. The patient did well for two weeks, when pulsation again returned. Pressure on the carotid of the other side controlled the pulsation, and I then placed a ligature around the primitive carotid of that side. During my absence from the city, ulceration took place and a gush of blood into the pharynx occurred. The resident stuffed the cavity, but the patient died eight days later, apparently from septic poison. If I had been present when rupture occurred, I had determined to have laid the sac open and have tied above and below. From the history of these cases I believe that in this condition the operation should be a formal one of section of the jaw, and then proceed to ligate above and below the sac.

Dr. A. Vander Veer, Albany: In December, 1882, a man forty-two years of age, a farmer, was sent to me with a swelling of the neck, which was diagnosed to be an aneurism of the internal carotid artery. It was attributed by him to forced motion of the head to one side which was required in a certain part of his work. It was decided to at first try compression. This was faithfully carried out, and at the end of six days the swelling was much diminished and the tumor in the pharynx seemed more solid. He then went to his home, but returned one month later, the previous condition having returned. Compression was again tried, and at the end of five days there was a marked diminution in the size of the tumor. The patient was kept under observation for ten days, but the swelling did not return. He then returned home, and continued in apparently good health for four or five weeks, when he suddenly complained of severe pain in his head and fell dead. An autopsy was made, but no satisfactory explanation of his death could be found. The physician was inclined to attribute it to apoplexy.

Dr. L. McLain Tiffany, Baltimore: In the case reported by Dr. Prewitt, there was no room for a distal ligature. In this case, however, it might have been possible to apply a compress, pressing the artery against the base of the skull. We have a record of such a case in Guthrie's commentaries. It is the case of Twitchell, of New Hampshire. A man had part of his neck blown away by a cannon shot, exposing the carotid artery. Ten days later, while the physician was in the house, the artery gave way. The hemorrhage was controlled by the finger, and a ligature applied below the opening. The hemorrhage continued when the finger was removed. There was not room for a ligature on the distal portion of the vessel. The doctor made a graduated compress and pressed the artery against the base of the skull. The patient recovered.

I have had one case in which I controlled hemorrhage from the jugular vein by pressure made in this way. The patient was a child who had an abscess of the neck, following scarlet fever, which opened the jugular vein. As a result of this there was great swelling of the neck. The sac was laid open and the vein controlled by a compress making pressure against the vessel just external to the jugular foramen.

Dr. T. F. Prewitt, St. Louis: I agree with those who have taken part in the discussion that the old operation is the proper one for traumatic aneurism where it is possible to apply it. In this case this could not be done. Dr. Thompson has said that it is useless to tie the common carotid artery for aneurism of the internal carotid artery. There are only two cases reported where the ligature was applied. In the case of Syme, death did not appear to be due to the operation. Compression has been alluded to, but we should not expect compression to succeed in a case where ligation failed. If the circumstances had been suitable, I should have tried compression, but the symptoms were too urgent to permit of this. Dr. Tiffany has suggested compression of the vessel at the carotid opening, but believing as I did that there was no artery outside of the skull, it would have been bold surgery to have laid open the sac and sought for the opening, which I could not detect with my finger in the sac. — *Weekly Medical Review*, St. Louis, May 22.

ALBANY MEDICAL ANNALS:

A Journal of the Medical Society of the County of Albany.

EDITORIAL COMMITTEE:

F. C. CURTIS, M.D., A. VANDER VEER, M.D., LORENZO HALE, M.D.,
JNO. BEN. STONEHOUSE, M.D., WILLIS G. TUCKER, M.D.

Vol. VII. JUNE, 1886. No. 6.

BOOK NOTICES.

REPORT OF THE NATIONAL BOARD OF HEALTH FOR 1885.

Besides the report of the Board, which is a résumé of its work during the year, there are three principal subjects, which fill most of the volume, viz.: Cholera in Europe in 1884; small-pox in Montreal, and regulations for preventing its access to this country; and a summary of the laws relating to public health in the various states. As to cholera, considerable space is taken up by consular reports from various countries where it has prevailed, and also with a report upon the action of the various states precautionary against its ingress. The second appendix contains a report upon the precautions against the spread of small-pox in Canada and the states, and has much that is instructive collated upon the subject. Appendix C is upon the subject of sanitary legislation, and in it are collected various acts and laws in the different states under which health regulations are carried out. It is not the least valuable part of the volume, being a compendium of existing legislation on health in this country. The volume may be procured by application to members of congress, to all of whom copies have been sent for distribution.

EXCHANGES, PAMPHLETS, ETC.

"The Sanitary Value of the Chemical Analysis of Potable Waters." By Willis G. Tucker, Ph.D., Albany, N. Y. A paper read before the Albany Institute, April 7, 1885. Extracted from the "Transactions of the Albany Institute," Vol. XI.

"Memoir of Austin Flint, M.D., LL.D." By A. Jacobi, M.D., President of the New York Academy of Medicine. Reprint from *The Medical Record*, April 24, 1886.

"On the Limitation of the Contagious Stage of Syphilis, Especially in its Relations to Marriage." Read before the Medical Society of the State of New York, February 5, 1886. By F. N. Otis, M.D., Clinical Professor of Genito-Urinary Diseases, College of Physicians and Surgeons, New York, etc., etc. Reprint from *Journal of Cutaneous and Venereal Diseases*, March and April, 1886. William Wood & Co., publishers, New York.

"Note Book for Cases of Ovarian and other Abdominal Tumors." Adopted from Note Books of Sir Spencer Wells and the Sanitarian Hospital, London, by John Homans, M.D., Harvard College, Cambridge, Mass. Cupples, Upham & Co., Boston.

"Rupture of Posterior Tibial Muscle," with Description of Apparatus for Extension of Ankle-joint. "*The Medical Record's* Position Editorially as to the Value of Exsection for Hip Disease." Reprints from *Denver Medical Times.* By W. R. Whitehead, M.D. (Univ. of Paris), Denver, Colo.

"Ethics of Female Sterility." By A. Reeves Jackson, A.M., M.D. Reprint from *Physicians' Magazine.*

New York Medical Monthly, Vol. I., No. 1, May, 1886. 16 pages, large 8vo, double-column, only $1.00 a year. 108 and 110 Duane street, New York. J. Leonard Corning, M.D., editor, with a list of eminent contributors.

The Boston Medical and Surgical Journal. Cupples, Upham & Co., 283 Washington street, Boston, Mass. 24 double-column folio pages, monthly. $5.00 a year.

Technics. An International Review of Medical and Surgical Science. Official organ of the American Association of the Red Cross. Edited by Jos. H. Warren, A.M., M.D., Chas. Everett Warren, M.D. Office removed from Palatka, Fla., to 51 Union Park, Boston, Mass. Weekly, 16mo, 48 pp., nonpareil, $3 a year; single copies, 10 cents.

Progress, Louisville, Ky., double-column form, forty-eight pages, the first number bearing date July, 1886, will be printed some time in June. Edited by Dudley S. Reynolds, M.D., Professor of General Pathology, Hygiene, and Diseases of the Eye and Ear, Hospital College of Medicine.

The School Bulletin. Published by C. W. Bardeen, Syracuse. N. Y. 12 pages, quarto, monthly, $1.00 a year. April number contains editorial defending Principal P. H. Edick, who was discharged from the Owego High School because of his remarks, at the meeting of the Principals' Association at Syracuse last January, to the effect that much that is attributed to over-study of pupils is due to abominable personal practices.

STATE DENTAL SOCIETY.—The eighteenth annual meeting was held in Albany on Wednesday and Thursday, May 12 and 13.

WHAT CHICAGO OUGHT TO DO.—Not only pay the apothecary enough to cover all his loss, but a good *bonus.* His samples wrought more havoc than the police force, and hurt no innocent ones; it caught the aggressor only.—*Pharmaceutical Record.*

AM ENDE, of Hoboken, dispensed quinine, and not morphine, and is absolutely blameless. He dispensed the prescription exactly as called for, and the death of the patient was caused *by the medical treatment.—Pharmaceutical Record*, New York, June 1.

MEDICAL ASSOCIATION OF CENTRAL NEW YORK.

Abstract of the Minutes of the Annual Meeting.

The nineteenth annual meeting of the Medical Association of Central New York, was held in the common council chamber, Rochester, May 18, 1886.

The following officers and delegates from the Medical Societies of Onondaga, Cayuga, Seneca, Ontario, Wayne and Monroe counties were in attendance: John O. Roe, Rochester, President; W. R. Laird, Auburn, and I. L. Jones, Minetto, Vice-Presidents; J. N. Arnold, Clyde, Secretary; A. Mercer, Syracuse, Treasurer; H. W. Streeter, A. Dana, E. B. Angell, W. S. Ely, B. I. Preston, Charles S. Starr, H. R. Nettleton, D. F. Curtis, W. R. Howard, S. C. Bradley, S. W. Davison, C. A. Briggs, A. P. Wisner, L. A. Weigel, E. E. Curtis, J. D. Pond, C. E. Darrow, C. A. Dewey, Benjamin Wilson, W. Sibley, W. J. Herriman and B. I. Hovey, Rochester; E. R. Armstrong and W. C. Bailey, Albion; W. J. Howe, Scottsville; R. N. Cooley, Hannibal Center; A. A. Young, Newark; L. B. Parmele, Batavia; L. F. Wilber, Honeoye Falls; W. S. Hicks, Bristol; W. Wiggins, Elbridge; M. W. Townsend, Bergen; J. H. Jewett and A. L. Behan, Canandaigua; D. S. Allen, Seneca; F. M. Pasco and D. B. Horton, Red Creek; C. M. Briggs and E. P. Pratt, Fairport; B. A. Fordyce, Union Springs; J. P. Creveling and Amanda S. Hickey, Auburn; W. B. Alley, Nunda; C. H. Richmond, Livonia; W. J. Hennessey, Palmyra; M. A. Veeder, Lyons; T. D. Rupert, Mendon.

President Roe called the meeting to order at ten o'clock in the forenoon, and appointed the following committees: On business, J. P. Creveling, B. A. Fordyce, William C. Bailey; on credentials, Gregory Doyle, J. H. Jewett, H. L. Elsner; on reception, A. Dann, C. E. Darrow, E. B. Angell; on publication, A. S. Hickey, L. A. Weigel, W. J. Herriman; on ethics, E. E. Angell, A. Mercer, A. S. Hickey.

The President's address was then read. Dr. Roe briefly expressed his gratitude for the support of the association accorded to his efforts to promote the interest of its meetings. He then proceeded to an extended discussion of the subject of "Differentiation in Medicine the Necessary Result of the Law of Evolution." The argument of the paper was a defense of the specialist as distinguished from the general practitioner. The following propositions were advanced in support of the position taken by the author:

First. It is an undeniable or self-evident fact that "at the present day medical science has expanded to such an extent that its intelligent cultivation as a whole by one person has become impossible."

Second. That this great expansion in medicine has come about by the intelligent devotion of individuals mainly or wholly to the cultivation of one department or branch.

Third. That the practical and natural outcome of this individual devotion mainly or wholly to one branch or department has correspondingly increased, or better fitted the individual to apply, this knowledge to the cure of disease.

Fourth. That true conservative, scientific specialism in the practice of medicine is but a healthful and necessary outgrowth from this intelligent study and cultivation of the different departments.

He divided specialists into the following two classes:

First. The empirical specialist—the one who arrogates to himself special knowledge concerning the treatment of certain diseases which has been acquired only by himself, or who has attained a dexterity in certain manipulations or operations that none others possess, or one who, without any special fondness or fitness by previous training, adopts a specialty as a supposed easy and short road to fame and fortune.

Second The rational or true specialist—the one who, while recognizing the impossibility of cultivating equally well every department of medicine, directs the resources he has gathered from the whole field of medicine to the enriching of one department.

The former class he unreservedly condemned; to the latter he attributed the greater portion of the progress of the science of medicine and the art of surgery.

The last hour of the morning session was occupied by the reading of a paper by Dr. S. A. Lattimore, professor of chemistry in the University of Rochester, on "Urea; Its Physiological Chemistry and Method of Quantitative Analysis." The paper was received with great interest, the more so on account of the interesting experiments by which Dr. Lattimore demonstrated his arguments.

In the afternoon several papers were read and their contents freely discussed. A paper of general interest was that on "Polypharmacy,' by Dr. W. J. Herriman, of Rochester. He said that polypharmacy does not mean the use of too many medicines, as is generally understood when the term is employed, but the use of many medicines. The word is used in its false sense when the homœopathists vaunt the superior efficacy of their single remedy, and inform us that we use too many drugs. First of all we must assume that the polypharmacist is an honest, conscientious and intelligent physician. The man who will combine twenty ingredients in a prescription without a definite idea of what he proposes to accomplish, or to cover a defective diagnosis, or because if one medicine doesn't hit the spot another one may, is an arrant bungler and worthy of the severest condemnation. His action is not polypharmacy, or pharmacy at all, but an ignorant, aimless shot in the dark at the pathological enemy which he fears exists somewhere, and which a portion of his scattering charge may possibly reach. But when the intelligent, skillful physician, having made his diagnosis, combines several ingredients in a prescription, he is taking advantage of one of the highest privileges of the skilled physician. The author of the paper enforced his arguments by the use of several illustrations showing the benefits to be derived from the use of several ingredients in prescriptions.

The titles of the other papers read during the meeting are as follbws: "The Treatment of Epithelioma," by Dr. Charles H. Richmond, Livonia; "Two Cases of Abdominal Tumor," by Dr. Amanda Sanford Hickey, Auburn; "Restoration of Crippled Joints," by Dr. L. A. Weigel, Rochester; "Graves's Disease, with Report of Cases," by Dr. William C. Bailey, Albion; "Progressive Muscular Atrophy," by Dr. A. Dann, Rochester; "A Case of Paralysis Accompanied by Pregnancy," by Dr. B. Angell, Rochester; "Fundamental Gynecological Pathology," by Dr. H. W. Streeter, Rochester; "An Improved Self-Retaining Sims Speculum," by Dr. C. E. Darrow, Rochester; "Pneumonia; Report of a Case Complicating Last Month of Pregnancy," by Dr. John H. Jewett, Canandaigua; "Use of Anæsthetics in Labor," by Dr. W. S. Ely, Rochester.

At the close of the programme the election of officers took place, with the following result: President, J. P. Creveling, Auburn; Vice-Presidents, A. Dann, Rochester, and Gregory Doyle, Syracuse. The Secretary and Treasurer were re-elected.

The following new members were elected: Monroe county, C. A. Dewey and E. B. Angell; Madison county, V. W. Mason; Orleans county, E. E. Barnum; Oswego county, F. S. Low and C. M. Lee; Ontario county, John H. Jewett; Onondaga county, D. M. Totman and S. M. Higgins; Cayuga county, A. D. Stewart.

The delegates pronounce this meeting the most interesting and best attended in the history of the organization. The semi-annual meeting of the association will be held in Rochester the third Tuesday in November.

UNION MEDICAL ASSOCIATION.

The eighty-eighth quarterly meeting was held in Saratoga on Saturday, May 8, 1886.

Dr. T. W. Nellis was called to the chair, in the absence of President J. W. Moore, of Cohoes.

After disposing of routine business, Dr. T. W. Nellis reported a case of Strangulated Hernia, in which reduction was accomplished by equable air pressure.

Dr. Jno. Ben. Stonehouse, of Albany, gave an account of the Typhus Fever Epidemic in the Albany County Penitentiary.

The August meeting will be held at Lake George.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY.

Minutes of the Special Meeting of May 21, to take Action on the Death of Dr. Henry March.

A special meeting of the Medical Society of the County of Albany was held at Alumni Hall, on Friday, May 21, at 2:30 P. M.

Present: Dr. B. U. Steenberg, President, and Drs. T. P. Bailey, E. A. Bartlett, J. M. Bigelow, H. S. Case, D. H. Cook, J. D. Craig, W. H. Craig, C. H. Crawford, F. C. Curtis, M. J. Dwyer, J. D. Featherstonhaugh, Amos Fowler, S. H. Freeman, Lorenzo Hale, William Hailes, Jr., J. C. Healey, John V. Hennessy, Henry Hun, Maurice J. Lewi, M. McHarg, H.

G. McNaughton, James H. Mitchell, S. R. Morrow, William H. Murray, T. W. Nellis, W. J. Nellis, S. A. Russell, W. B. Sabin, C. F. Scattergood, James H. Skillicorn, John Thompson, W. G. Tucker, T. F. C. Van Allen.

President STEENBERG announced the purpose of the meeting as follows:

A cloud of sadness has again lowered around us, and we find ourselves here assembled that we may pay tribute to the memory of our late associate, Dr. Henry March.

Dr. March died at Santa Barbara, California, May 7, 1886, whither he had gone to recuperate in health.

He became a member of this Society November 8, 1853, and from that very day, as a glance at our records will show, has been one of our most active members. He was, in fact, one of our oldest members. November 8, 1875, he was chosen President, and in many other ways has served the Society, and I can vouch that no other member enjoyed greater pleasure in its success. * *

We shall long remember his cordial greeting, his kindly heart, his amiable and conscientious character. * *

Dr. S. H. FREEMAN, from the committee appointed at the semi-annual meeting to draft resolutions expressing the great loss of the Society, presented the following memorial, which was adopted:

There is but one sentiment here, as again we mingle our tears in one common sorrow, and we may well exclaim, How transitory is this life, and whither are we going? What is the value of this life but as a preparation for the life to come? The echo of the funeral dirge of our lamented Dr. Snow had hardly ceased to reverberate upon our sorrow stricken hearts when we were summoned, at brief intervals of time, to mourn over the more sudden departure from this life of Drs. Vander Poel, Warren Fowler, Riley and Wade, and now we have received the startling intelligence of the sudden death, at Santa Barbara, Cal., of our esteemed friend, Dr. Henry March. We mourn in his death a loss to the profession and to the community. He was a man of an amiable disposition and quiet manner. He was a conscientious and faithful physician and trustworthy friend. He was for many years an active member of the Young Men's Christian Association, and zealously interested in every good work. He was a true type of an earnest Christian. Therefore,

Resolved, That this society has learned with profound sorrow of the death of our valued associate, Dr. Henry March.

Resolved, That while we mourn a personal bereavement, we are grateful to our Heavenly Father for the excellence and influence of his life, and we record our appreciation of his character, so ingenuous, so faithful, so noble, so imperishable.

Resolved, That we tender to the bereaved family our heartfelt sympathy in their deep affliction.

Resolved, That as a mark of respect we will attend his funeral in a body and wear the usual badge of mourning.

S. H. FREEMAN,
A. VANDER VEER,
J. D. FEATHERSTONHAUGH,
WILLIAM HAILES, JR.,
JAMES P. BOYD,
Committee.

Dr. F. C. CURTIS said:

It was with a sincere sense of personal loss that I heard of the death of our friend and associate, although not unanticipated. There are not many, I think, who have been favored with some of the qualities that he possessed to so high a degree as Dr. March. * * Few had such instinctive goodness of heart and such ready ability to show it towards every one. It is not always that these go together. * * He had, too, a warm love for his profession, a quality which one's professional associates always admire.

Born into the profession as the son of a great surgeon, he cherished the fact as an all-possessing and sacred memory. It was his constant effort to keep that memory fresh and to add another token to the monument of his father's fame. He has been a most faithful member and officer of this Society, and has contributed largely to its welfare, as well as to the college and medical institutions with which he was connected. * * Throughout his life has been faithful to truth and rectitude and in accord, so far as he could discern and carry it, with the spirit and will of his Master. Death was not to him " the gathering darkness of a great calamity." Not many die whose loss is so full of regret to all his associates as that of Dr. Henry March.

Dr. J. D. FEATHERSTONHAUGH said:

One by one we lose our old friends; we try to make fresh ones; the years roll on, but an unforgotten regret ever reminds us of them. Dr. March was our old friend. He was the friend of every one here. Every one knew him and was the better man for it. The genial good fellowship which characterized the relations between the Society and himself has never been disturbed, and the recollection of it is a pleasure to day. I miss to-day his unfailing presence at our meetings; I miss his hasty, pleasant nod; I miss his nervous handshake—those characteristics which made him Henry March. A good man has gone out from among us, in whose heart was room for neither guile nor malice, and to whose memory I pay my sincere tribute.

The Secretary read the following communication:

28 EAGLE ST., ALBANY, N. Y., *May* 21, 1886.

Dr. B. U. Steenberg, President Medical Society County of Albany:

My Dear Doctor—I regret exceedingly that a severe cold will prevent my attendance upon the Dr. Henry March memorial meeting to-day. With many of his dear friends I would join in the testimony of affection which he so worthily deserves. * *

As I unroll the scroll of an acquaintance that extended over a period of nearly thirty years, I fail to recall a single act but that was noble and honorable in every point. He was bred a gentleman, and his high sense of honor was ever present in his dealings with his fellow man. His association with his father, the greatest surgeon which this section of the country has ever registered, gave him a rare practical experience, and in the reading of surgical works to elucidate the many intricate cases that came under the care of this same successful practitioner, he acquired a vast fund of knowledge.

It was my privilege to know Dr. Henry March somewhat intimately, and in my professional conversations with him I have been pleased, instructed and benefited. His sensitive nature and delicate siftings of facts caused him to appear at times to disadvantage in his expression of opinion regarding his professional work. This was but the natural outgrowth of years of association with a mind so strong, so positive, so vigorous, as seldom, if ever, to bow or yield in any degree to his younger and worthy colleague.

There was, however, no shadow of vacillation in his life as an earnest and devout Christian. I knew him well in his church fellowship. We attended for many years the same church, and for purity of purpose, for earnest support given to pastor and officers of that organization, no one excelled. He was generous in his criticisms and forgiving of the faults of others. He gave freely to all worthy objects of charity, and his visits upon the poor, sick and others in distress will cause his memory to be treasured and kept bright in the hearts of many who still reside in his native city. He leaves behind him a record of much good done in this life, a sweet and fragrant atmosphere of a lovely disposition. We shall miss him in our college work and in our Society. The city of his birth has lost a good, a true citizen, his church an earnest worker, whose place it will be difficut to fill.

Yours sincerely,

A. VANDER VEER.

Dr. WILLIAM HAILES, Jr., said:

My acquaintance with our deceased brother dates back many years. I first met him when as a student I applied for his father's preceptorship. I had just finished my interview, had felt myself pierced through by the clear, searching eyes of his illustrious father, and needed a little encouragement. Dr. Henry March was waiting to receive me, and was then, as we have all here ever found him, kindly considerate and sympathizing. All through my student life, and later during my professional career, I found many pleasant and unexpected kindnesses from his hand. * * In the death of Dr. March we lose one of the truest friends mortal could ever possess.

The following notes were made at the

AUTOPSY OF DR. HENRY MARCH,

held May 20, thirteen days after death. The body had been embalmed.

Heart enlarged; anterior wall of left ventricle extremely thin—only one-eighth of an inch in thickness at one place.

Pericardium contained four ounces of bloody serum. Atheromatous degeneration of posterior coronary artery and aorta. Quite large calcific plates in pulmonic pleura, and over orifices extensive adhesions of old standing of both lungs.

Kidneys, red, granular and quite contracted.

Other abdominal organs healthy.

Brain—Marked venous congestion, and atheromatous changes in arteries at base of brain, with patches of calcification. Both carotids plugged with quite firm emboli (coagulæ); right, more marked than left. Three ounces of serum in right lateral ventricle, and a large softened infarct in right occipital lobe, between the postero occipital and calcarine fissures, probably caused by an old thrombus of a year's standing or more.

Dr. CURTIS moved that the resolutions be published in the daily papers. Carried.

The Society then adjourned.

W. J. NELLIS, *Secretary.*

ALBANY
MEDICAL ANNALS:
A Journal of the Medical Society of the County of Albany.

Vol. VII. JULY, 1886. No. 7.

REPORT OF FIVE CASES OF KNOCK-KNEE TREATED BY MACEWEN'S METHOD.*

BY S. R. MORROW, M.D., ALBANY,
Adjunct Professor of Surgery, Albany Medical College.

The chief scientific interest of cases of the class that forms the subject of this report centers in their pathology, for their diagnosis is so easy and the treatment, under modern methods, so simple and satisfactory as to make comparatively slight demands on the surgeon's skill and judgment.

By way of introducing this report, I wish to spend a short time in discussing the pathology of the deformity usually called knock-knee, or genu valgum. I shall not have any new views to advance, but only to present an incomplete résumé of the opinions of well-known authorities, such as Macewen, Little and Poore, and shall make free use of their published writings; nor shall I, for lack of time, enter upon a complete examination of all grades of the deformity, whose milder degrees and earlier stages are susceptible of quite different treatment from that demanded by cases of the severity exhibited by those I report —cases of true genu valgum.

Dr. W. J. Little, of London, one of our great authorities on this subject, objects to the term *knock-knee* as a generic name for the distortion, since, in many cases, only one knee is affected, and it is not constant that the affected knee strikes against its fellow. He would therefore prefer the term *in-knee.* But all cases of in-knee are not instances of true genu valgum.

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*Read before the Medical Society of the County of Albany, Wednesday evening, April 21, 1886.

If one examine a case of the latter, " it will be found that the anterior surface of the *femur* is directed forward, and that the feet point outward to a greater or less degree, never directly inward. In uncomplicated cases, when the legs are *fully extended* on the thighs, the inner surfaces of the knees are in contact, while the internal malleoli are more or less separated," so that the knee forms the apex of a triangle, the base of which would be formed by a line drawn from the trochanter to the outer ankle, and on flexing the leg on the thigh, the deformity disappears, and the malleoli can be brought into contact. This is a different condition from that which obtains in certain cases of spastic contraction, and of knee-joint disease, or of late hip-disease. In these cases the whole limb is rotated inwards from the hip-joint, the knee flexed more or less on the thigh, and the feet turned inward. In them it is often impossible to fully extend the leg on the thigh, on account of the contraction of the muscles at the back of the thigh and leg.

Now, what is the essential nature of the deformity—where does it chiefly lie? The cause must be found in one or more of the anatomical elements that enter into the formation of the knee-joint, so that there may be *three* theories to account for the production of genu valgum, viz., the ligamentous, the muscular, and the osseous.

Those who adopt the ligamentous theory ascribe knock-knee to contraction of the external, and relaxation of the internal, lateral ligaments of the knee-joint. But, apart from the histological nature of ligamentous tissues, which prevents their undergoing *active* contraction, we have the fact that the condition of the ligaments of the joint varies in genu valgum. Sometimes both sets are wholly relaxed. In some cases they are in their normal state. In others, the external ligaments are relaxed, while the internal hold the inner condyle and head of the tibia in close contact—just the reverse of what the advocates of this theory maintain. In still other cases the external ligaments are so relaxed that the leg can be brought into line with the femur without the use of any force, so that these external ligaments cannot be the agent in the production of genu valgum, and, of course, section of them cannot cure the deformity.

Others, again, believe contraction of the biceps muscle to be the cause of knock-knee. But, as Poore observes, it is difficult to understand why this muscle alone should be contracted, when it is supplied by the same nerve as the other muscles at the back of the thigh. In many cases the biceps, with the other hamstrings, is neither contracted nor relaxed. In some cases it *is* found contracted, together with the fascia, but this is a secondary, not a primary, condition.

The third theory, and the one now generally adopted, is that all cases of knock-knee are due to alteration in the shape of the bones about the knee-joint; at least that, whatever be the starting-point of the disease, the final stage is an alteration in the shape and size chiefly of the internal condyle of the femur. Osseous changes may, of course, occur also in the tibia, consisting in an alteration of the normal plane of the articular surface of the head of the tibia, and both of these sets of bony changes may occur together.

If we look first to the femur, where the changes are most often found, we can see that the plane of the lower surface of the condyles can be changed in three ways: "(1) By increased growth of one condyle; (2) by bending of the lower end of the shaft; (3) by atrophy of one condyle." It will be remembered that, in the normal femur, the inner condyle is longer than the outer, as will be seen by placing the bone with its long axis in the vertical line. The obliquity of the femur, when articulated in its natural position, brings the lower surface of the condyles into the horizontal plane, and a slight change in the normal obliquity of the femur will be enough to cause a lowering, and relative lengthening, of the inner condyle. Clark, quoted by Macewen, made careful measurements of 166 limbs in patients affected with knock-knee, and found in 84 per cent. an increase in the length of the internal over the external condyle. The amount of this excess of length varied from $\frac{1}{4}$ inch to $1\frac{1}{4}$ inch. These facts are interesting, because Little maintains stoutly that the change in the femur is not excessive lengthening of the inner condyle, but arrested development of the external condyle, as a result of its pressure against the head of the tibia.

A second change sometimes found in the femur is an outward curvature of the shaft at its lower and inner side. It has been found by Mickulicz that there is in many cases an overgrowth of the diaphysis on the side of the inner condyle, there being little or no hypertrophy of the epiphysis. This adds to the length of the inner condyle, and is one cause of the deformity. This outward curvature of the lower end of the femur is also sometimes due to simple rhachitic bending.

There is still a third change in the femur met with in certain classes of cases—a flattening or atrophy of the external condyle.

Looking now to the tibia for changes occurring there, it is found that occasionally, when there is nothing abnormal in the shaft of the femur or its condyles, the articulating surfaces of the head of the tibia are not on the same level, the inner facet being on a higher plane than the external, thus throwing the axis of the tibia outward.

Finally, genu valgum may be due to the above changes taking place in both the femur and tibia, rhachitic bending of the shafts often contributing no small share to the deformity. Perhaps, in the majority of cases, no *single* factor can be assigned as the cause.

In further explaining the pathology of this affection, we must consider for a moment its *causes.* Dr. Little believes that the prime factor in the etiology is atony of structure and the unfavorable action of gravity. This atony of muscles and ligaments is often due, according to Little, to improper or insufficient feeding, and is most often seen in the children of feeble parents or in those who are hand-fed. Such children are not rhachitic, but simply feeble, and their tissues lack tone. He remarks that atonic genu valgum is related to several other disorders in which weakness of fibrous and muscular structure exists; for example, prolapsus ani, prolapsus uteri, ectropium senile, hernia, flat-foot, etc. "In such atonic subjects, the action of gravity is very unfavorable; consequently in their limbs we are apt to see the ankle and tarsal joints first affected (causing flatfoot), next the knee (genu valgum), next the hip (a certain waddling gait), lastly the spinal column (scoliosis)."

"There are two periods in the age of man when growth is extraordinarily rapid. The first period is from birth until the ninth month, and the second is at the approach of, or during, puberty, say from the tenth to the sixteenth year." Now, it is near these two periods of rapid growth that genu valgum is most often developed, but the cause differs somewhat with the two periods. In the earlier period, up to five or six years, rickets is the predisposing cause, although, as before stated, Little holds that many cases, even in this period, are simply atonic. As to the cause of the deformity at puberty, it is probably, as Poore states, that the formation of new bone elements is more rapid than the ability of the system to furnish the earthy salts necessary for their calcification. Hence, the new material is liable to yield in any direction under persistent force. At any rate, rickets cannot be the cause of these late-developing cases, for that is a disease of childhood rarely seen after the sixth year.

Going back now for a moment, we saw that Little ascribes the occurrence of genu valgum to general atony and the influence of gravity. The knee is bent inward, rather than outward, because there is normally an inclination inward of the knee, and once the disease is started, this inward inclination becomes greater and greater.

Dr. Agnew, of Philadelphia, states as his belief that the inner condyle becomes elongated in the following way: In the normal relation, the condyles of the femur bear with equal pressure upon the head of the tibia, and this even pressure is essential to the equable development of the two condyles. When, from atony or any other cause, the knee receives an inward inclination, the pressure of the inner condyle against the tibia is lessened, and, its tendency to growth being thus unchecked, it undergoes a hypertrophic elongation, and thus thrusts the tibia gradually outwards. This seems a very plausible explanation of the occurrence of the deformity, and does not assume or admit an atrophy of the external condyle such as Little insists upon. Little himself does not give any statistics to support his views, whereas we have the careful measurements of Clark, reported above, as well as others, to prove the existence of an actual (not relative) increase in length of the inner condyle.

It is worth while to note, in the last place, that the distortion of the knee disappears when the joint is bent. Supposing the patient to be seated, as the leg becomes flexed to a right angle (the knees being kept in contact), the malleoli approach so as to touch. This is because that, however much the condyles of the femur may differ in length, they remain of the same thickness, antero-posteriorly, so that when the patient bends the knee, the posterior surfaces of the condyles present in a horizontal plane towards the articular surfaces of the tibial head.

One other change has been noted by Mickulicz, viz., that the articular cartilages of the external condyle and the corresponding tibial facet are thickened, while those on the inner side of the joint are thinned. This condition is not infrequently observed in cases where the normal pressure of cartilaginous surfaces is altered.

There are many other influences at work to produce this striking deformity, such as heredity, and all the enervating effects of our national increase in luxury, for this deformity is by no means confined to the poor and ill-fed. But there is no time to dwell on them.

I close by enforcing the lesson taught by this distressing deformity, the old lesson taught by so many painful experiences, of the necessity of using every means to secure a more healthy and temperate mode of living for the children of our overcrowded cities. It seems to me that the physician can do no more beneficent work than improve the hygiene of infancy and childhood, and so lay the foundation of healthy living that these diseases of mal-nutrition cannot do their destructive work, crippling both body and mind.

Proceeding now with the report proper, three of the cases occurred in two brothers, one having both knees affected. These children were the second and third of a family of four, the others presenting no peculiarities. Both of our patients had, besides the knock-knee, supernumerary little fingers and toes which were successfully removed in infancy. The younger child had a right talipes equino-varus, which had been operated on some years before, and for which I did a secondary tenotomy at the time of the osteotomy. The older had a slight degree of hypospadias, and, in both, the central incisors of the lower jaw were wanting. The children were also undersized and of somewhat imperfect or retarded mental development. The mother does not know of any ante-natal influence that might help to explain the abnormal development of these two children, and states that they have been perfectly healthy from birth. There is no evidence or history of rhachitis, and they are stout and muscular. The mother did not notice any thing wrong until the children began to stand alone and to walk, at seventeen months, when she observed that their knees bent inwards more or less.

On February 28, 1885, the first operation was performed, upon the younger child, Henry G., at that time aged six years. The left knee only was affected, and the recovery was uninterrupted and complete.

In the older child, Marshall G., aged eight and a half years, the deformity was double. In consequence of this, the ankles spread further apart as the boy grew, and for a year past, his mother stated, he had not grown any taller. In fact, before the operation he was not quite as tall as his brother, two years younger, but since then he has gained some in stature. In this case, both knees were operated on at the same sitting, November 7, 1885, and here, too, the result was satisfactory, with a few exceptions. In the left limb the outer hamstrings were so tense that, on straightening the limb, the two segments of the femur did not come into line, but bowed forward a little, forming an angular projection on the lower and front part of the thigh. It was thought best not to do a tenotomy of the hamstrings, which would undoubtedly have permitted the femur to be made perfectly straight. The constitutional disturbance in both cases was slight, the temperature not exceeding 101° F. at any time. The plaster dressings were discontinued after the eighth week, but had been twice reapplied on account of soiling and some excoriation of the skin at their upper extremities.

I might have stated that the tibial crests in all these affected limbs were very greatly developed, presenting at their upper part an elongated mass of bone measuring about three inches from above downwards, projecting forwards and inwards an inch beyond the general surface of the shin, and terminating below in a sharp point. This bony development occupied the upper part of the tuberosities of the tibia, and prevented complete extension of the leg upon the thigh, so that, when the children stood, their legs appeared to project somewhat backward as well as laterally.

The last two cases occurred in a boy, Eddie D., aged 7. This child was rickety from birth, being left with both femora and tibiæ curved forward. In the former cases the knees did not cross, but were merely in close contact when the children stood or walked, but in this last subject there was marked crossing of the left knee in front of the right, and the knees struck together at every step. The child was feeble and badly developed, and for this reason it was decided not to perform simultaneous operations on both limbs. The first operations was done December 19, 1885, upon the right side, and the case progressed favorably, except that the pulse continued high—125 to 135; the temperature did not exceed 100.5° F. Wishing to save time, I operated upon the left limb three weeks later. Unfortunately, the tissues about the wound broke down, converting the case into one of open fracture. The fever was high, for three weeks, reaching 105° and not falling below 102°, the pulse continuing to range from 125 to 140, the child emaciating and losing appetite. I was fearful that he might not survive, but at last the bad symptoms disappeared, and after three months he was discharged cured, but the deformity in the right limb was not wholly overcome.

This experience convinced me that a mistake was made in not operating on both limbs at the same time, or at least in not allowing a longer interval to elapse between the two operations. I do not think the great constitutional disturbance following the second operation was due to the suppuration from the open fracture, for it was very slight at all times, and it must be remembered that the condition here was very different from that in an ordinary compound fracture; for in the latter we have widespread injury to the soft parts, and rough and jagged bones irritating the tissues, instead of the smooth-cut ends left by the osteotomy, and such failures to preserve the subcutaneous character of the wounds have not interfered with the successful result of the operations, as statistics show. In another case I should, without hesitation, and by decided preference, operate on both limbs at once, if the case required it.

For pronounced cases like those here reported, treatment by supports or braces is wholly inadequate. Nothing will answer but some form of operation upon the bones, and all operations aim to cut the bones subcutaneously. The first operation devised was that of Ogston, of Aberdeen. He passes an Adams's saw obliquely to the shaft of the femur, entering it upon the inner side of the internal condyle, so as to separate the condyle from the shaft. The saw is withdrawn, the leg forcibly brought into line with the thigh, thus forcing up the separated fragment to its normal level. The operation has been done with success many times, but it is a great objection to it that it opens into the knee-joint, adding to the ordinary risks of the operation that of synovitis, and in a few reported cases there has followed a genu varum, or outward bowing of the limb, from interference with the epiphysis and consequent arrest or retardation of growth in the inner condyle; so that, as Dr. Fowler observes, Ogston's operation, if performed at all, should be reserved for cases occurring in adult life.

Another operation is Reeves's. In this, the section is made by a chisel, instead of the saw, but is carried down only *to*, and not through, the articular cartilage. Chiene, of Edinburgh, further modified the operation by removing with a chisel a wedge-shaped portion of the inner condyle, at or near its junction with the shaft, claiming to keep entirely outside of the joint and above the epiphysis. But it is not certain that this can be done, and the operation is more tedious and difficult than either of the others.

The indications for correction of the deformity are to make the section of the femur so as to keep well above the epiphysial line and outside of the knee-joint, and the simplest method of accomplishing these results is to be chosen. The operation known as Macewen's supracondyloid (or, better, supracondylar) osteotomy seems to fulfill all these requirements, and it is this operation which I performed. It is worth while to state that at the International Medical Congress, held in Copenhagen, in 1884, during the discussion on genu valgum, both Ogston and Chiene publicly abandoned the operations that bear their names, and declared their preference for Macewen's operation.

For its performance we require a common scalpel, a mallet, best made of hide, a small pillow filled with sand, which may be sublimated, so as to avoid contamination of the parts in case the pillow burst and its contents be spilled, and lastly a set of Macewen's osteotomes. These are chisels of finely-tempered steel, but having the blades wedge-shaped; that is, evenly sloping to the edge on both faces. The object of this is to prevent chipping of the bone. The theory of their action is that they spread apart and condense the bone as they penetrate it, leaving a wedge-shaped gap, which becomes filled up as the fragments of bone are brought into line after the osteotome is withdrawn. It is also asserted that the bone must not be cut completely through, so that the fragments may be held in place by the periosteum on the side opposite the section, and be thus prevented from slipping upon one another. I must say that I did not find this practicable, but was compelled to completely separate the fragments before the proper adjustment could be obtained, and there must, therefore, have been left a gap on the outer side of the femur. Macewen employs a set of three of these osteotomes, which are successively broader at the base of the wedge. The one with the broadest base is first used, and, if it becomes wedged or jammed in the bone, it is to be withdrawn and the one next smaller used, which will work freely in the track made by the larger blade.

The points given by Macewen for the proper performance of the operation are these: With the limb extended, ascertain the upper margin of the external condyle, and measure a finger's breadth above the same, and draw a line from this point across the front of the limb, this line to be at right angles to the long axis of the femur, and not parallel to the articulating surface of the condyles. Now draw a line along the inner aspect of the limb parallel to its long axis and about half an inch in front of the tendinous insertion of the adductor magnus muscle. At the point where these two lines intersect, the incision is to be made. By following these directions we keep above the epiphysial junction and away from the anastomotica magna artery.

The patient is to be anæsthetized and Esmarch's bandage applied, after the parts have been thoroughly washed with an antiseptic solution. The patient is now to be turned slightly on his side, so as to have the limb rest firmly on its outer side upon the sand pillow, and the operation is commenced by driving the scalpel down to the bone at the point previously determined, keeping the blade parallel to the femoral axis. It is then moved slightly from side to side, so as to enlarge the incision, and the osteotome slipped in alongside of it. The knife is now withdrawn and the osteotome turned through 90°, so as to bring its edge at right angles to the limb, when it is struck a quick, forcible blow with the mallet, this first blow being given with sufficient force to drive the blade well through the exterior hard shell of bone, the extremity of the osteotome being kept directed toward the point where the first line began, that is, a finger's breadth above the external condyle. Repeated blows are struck, the instrument being partly withdrawn and made to enter a new portion of bone each time in a direction radiating, so to speak, from the point of entrance. As you work your way through to the opposite side, you finally encounter greater resistance, showing that you have entered the opposite side of the femur, when you must be cautious lest the bone and soft parts be cut through together. When the section of the bone is finished, the osteotome is withdrawn and the limb firmly grasped above and below the knee and forcibly straightened. We have to be careful at this stage lest we rupture or overstretch the external lateral ligament of the knee-joint, which would leave a loose lateral movement of the joint and a comparatively useless limb. The wound is then irrigated and closed antiseptically and put up in a plaster of Paris splint, and the cure completed by passive movements of the limb.

This procedure was followed very carefully in all my cases, and the results were highly satisfactory, save in the right limb of the third patient. Here the femur was not completely broken through — the periosteum not torn — consequently the limb was not completely straightened, and a secondary operation may be attempted at some future day.

The statistics of this operation are wonderfully good; the latest that I have met include 1,384 osteotomies, with only three deaths, and these not directly due to the operation.

In conclusion, I wish to express my hearty thanks to Dr. Vander Veer, both for the opportunity of performing the operations before the medical class and for the use of his osteotomes.

DISCUSSION.

Dr. William Hailes, Jr.: There is something very curious about the history of these little patients. as Dr. Morrow has already brought to your attention, and that is the fact of a supernumerary little finger on both hands, and also, as Dr. Morrow may recall, supernumerary great toes, which I think were present on the same three children. We could find no previous occurrence of supernumerary fingers and toes in the family on either side. There was also a slight degree of hypospadias. It is possible that this tendency to these remarkable abnormal developments may have been a factor in the occurrence of the knock-knee deformity. I was very much interested in Dr. Morrow's explanation of the pathology of the deformity; it has given me a very much better idea of the process than I had before.

Dr. A. Vander Veer: Dr. Morrow has been very clear in presenting the pathology of this subject, and the histories have been very pleasing. It was very pleasant to hear at the Copenhagen Congress how Ogston and Chiene gave up their theory, admitted they had been wrong, and decided in favor of Macewen's operation as the proper one for these cases. There is no doubt that the Macewen operation has been done oftener than any other operation, and that the results have been much better. I was very fortunate to be present to listen to the manner in which he presented the subject. These cases illustrate one point in which most of us have a pretty firm faith, and that is a clean, antiseptic operation.

Dr. S. B. WARD: Dr. Morrow's paper was so exceedingly interesting and so complete that I am unable to add any thing to what was said, except that it was gratifying to hear of the satisfactory results that he has had in these cases. I would move that a vote of thanks be tendered Dr. Morrow for his very interesting paper.

INSANITY.*

BY SELWYN A. RUSSELL, M.D., ALBANY.
(ALBANY MEDICAL COLLEGE, 1877.)

Insanity was known to the ancients, but was of rarer occurrence than now, for the probable reason that their occupations were less exciting and wearing. The earliest cases of insanity of which we have record were those of Nebuchadnezzar and Saul. Sardanapalus and Cambyses were insane, Mohammed and Joan of Arc; George III. of England was several times insane; Coleridge, Shelly, Cowper, Cruden (author of Cruden's well-known "Concordance"), Charles Lamb, Lamb's sister (who thrust a carving knife into the bosom of her helpless mother, and killed her); Swift was confined in a cell into which his meat was thrown as to a wild animal; Edgar Allen Poe was said to be "bad and sad and mad." Martin Luther threw an inkstand at the head of the devil, but he is not charged with insanity. Swedenborg had daily alleged talks with angels and demons, and received sheets of paper from heaven covered with written and printed characters. Jeremy Bentham was called "the queerest old man alive;" in the warmest weather he wore the thickest gloves, and in the coldest a straw hat bound with the brightest green ribbons. His walk was a trot. He went every year for his annuity, trotting all the way down and back through Fleet street, London, with his hair flowing loose. He slept in a bag, as a matter of economy, he said, as "it took less sheeting." Joe Smith, the founder of Mormonism, was doubtless largely influenced by hallucinations and delusions.

Hippocrates (460 B. C.) was the first to write on insanity, so far as we know, and his classification obtains at the present day. He divided insanity into three forms — mania, melancholia, dementia — according as the patient was exalted, depressed or feeble in mind. He also recognized the fact that insanity was due to brain disease, and so taught; but in the centuries following, and especially in the middle ages, his sound teaching was apparently forgotten, and insanity was then attributed to possession of the devil, punishment for sins, it was a moral state for which the patient was responsible, or was due to a supposed baneful influence of the moon (hence our word "lunacy," from *luna*, the moon). Therefore, for centuries previous to ours, and early in our own, the insane were either turned over to the priests, to be reasoned or prayed out of their unhappy state, punished for their seeming perverseness, or left to suffer from cruelty and neglect.

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* Extracts from a paper read before the Medical Society of the County of Albany, Wednesday evening, February 10, 1886.

Insanity, as such, is only a symptom—a symptom, namely, of brain disease (or disorder). But as it is the most conspicuous symptom, sometimes the only one, of cerebral mischief, and as in many instances the pathological condition is not known, we name the disease by its chief symptom, and call it insanity. Dropsy, cough, paralysis, have been themselves considered diseases in the past, but we now know them simply as symptoms. The fact should always be borne in mind, namely, that it is brain disease or disorder which causes mental disturbance; moreover it is necessary that the latter be more than the passing symptom of fever, intoxication, or poison by drugs.

Although insanity is due to brain affections, every disease of the brain does not therefore, on that account, belong to the class of so-called mental diseases. Anatomically, the diseases whose symptoms are called insanity are of all the most diverse—simple irritations without perceptible change of structure, inflammation of the cortical substance, atrophy, change of nutrition, anomalies of circulation within the cranium, hemorrhage, simple hyperemia, etc. All these conditions, differing so widely from each other, may produce symptoms on account of which the patient may require asylum treatment, and which are described by psychologists as insanities. Cerebral pathology does not yet enable us to say, from the symptoms of mind disorder, what changes have taken place, the locality of the changes, or the mode of origin.

Poets have ignored the organic causes of insanity, looking only to the intellectual side, regarding it as the result of moral causes. Nothing is more false, nothing is more opposed to everyday observation, than the attempt to transpose the nature of mental disorders into the territory of morality. Such representations are not only unnecessary and false theoretically, but are positively dangerous in practice. Through these the laity are filled with ideas of insanity not in the remotest degree resembling nature; so, then, when the facts do not correspond with their ideas, they say insanity is not present. How often is astonishment shown by persons visiting an asylum for the first time, when they find the inmates so different from their expectations. Insanity may exist not only without any raving, without great excitement, but even without delusions. Not many weeks ago the writer saw an insane woman whose mother, having read Conway's book, "Called Back," supposed she would suddenly emerge from the mental disturbance as did the heroine of the story. The patient died after a few days.

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The nerve cells, considered as to their intrinsic properties, individually participate in all the general phenomena of the life of cells. Like all their fellows they have their history, their genealogy, their periods of growth and decay. They are subject to alternate phases of repose and labor, and, like cells of other organs, are all gifted with a specific histological sensibility which gives them special characters. It is the blood alone which makes them live and feel; it is the sole agent of their incessant activity; it percolates everywhere through the nervous tissue, and carries with it the elements of all life and all movement. This is so true that if we succeed in momentarily stopping the circulation in the brain, the whole vital machinery stops at once, and every phenomenon of nervous activity is at the same instant interrupted. Decapitated animals are by this very fact deprived of all cerebral function; and it is a very remarkable circumstance that if we artificially restore to the cerebral tissue the nutritive materials of which it was deprived, namely, defibrinated blood, such as Brown-Sequard has experimented with, we succeed in giving their habitual stimulation to the nerve cells, the signs of life come back as if by enchantment, and the head of an animal thus momentarily revived will still afford short manifestations of a conscious perception of external things. Brown-Sequard once injected the head of a dog, when separated from the body, with defibrinated and oxygenated blood, and at the moment when the injection of this blood had recalled the manifestations of life, he called the dog by his name. The eyes of the head thus separated from the trunk turned towards him, as if the voice of the master had still been heard and recognized.

The continuity of this blood irrigation is, then, an indispensable condition to the regular working of the cerebral cells. It is at the expense of the juices exuded through the walls of the capillaries that they feed themselves and continually repair the losses sustained by action. Plunged in this humid atmosphere, borrowing from it that which enables them to live, they can endure the outgo of their daily labors, and maintain themselves in equilibrium as regards their receipts and expenditures. If it be demonstrated what an important influence a regular circulation has in evoking the activity of nerve cells, it is, on the other hand, very curious to note what an influence the activity of these same cells may have in return on the vascular irrigation designed to provide for their nutrition, their maintenance, that is, as well as their expenditure. It is not, indeed, without astonishment that we observe that if, on the one hand, the nerve cells play a passive part with regard to the circulation which feeds them—if they are in subjection to it, and are veritably its tributaries—by an inverse phenomenon, from the moment they become active their position changes, and, ceasing to be subject as they were, they in turn become dominant. From the very fact that they are working—that there in certain isolated spaces they develop a state of nervous erethism—they at the same time determine a concomitant influx—they make an appeal to the blood and even turn to their own profit the irrigation of certain neighboring regions. Thus the brain, as regards the blood circulation, is at the same time active and passive; it is of necessity subject to its influence, and cannot, on pain of cessation from all its work, refuse its aid; and yet, at a given moment, it reacts, solicits it, makes appeals to it, and thus unconsciously *directs* the vasomotor actions designed to maintain the integrity of its vital energy (Luys). Thus, from this double influence of the circulation on cerebral activity, and cerebral activity on the circulation, a vicious physiological circle results, calculated to have an inevitable influence upon the infinite series of regular cerebral operations, as well as upon the progressive evolution of pathological phenomena, which mostly are but exaggerations of the normal actions of the organism.

Every one knows how fatal are chronic lesions of the capillary plexuses to the delicate substance of the cerebral cells, how the plastic exudations which proceed from the vessels, or other deposits which become infiltrated into the tissues and interstices of the cells, become like so many foreign bodies hostile to life, and injurious to the physiological medium whence they draw the elements of their constitution. Further, every one who knows how moral causes or too energetic work—work which exceeds the amount of reserve nerve force, prolonged vigils which do not permit the recovery of lost materials, occupations concerning a single subject which induce a chronic congestion within certain circumscribed limits—how these are so many morbid modes of excitement which maintain a permanent condition of local erethism, and thus indirectly become the causes of those repeated affluxes of blood which are so inevitably followed by exudations of all kinds and persistent new formations, as is seen in the lesions of general paralysis. Hence the preponderant influence which the whole series of moral affections exercises upon the genesis of mental maladies, whether they be derived from an intellectual excitement prolonged beyond physiological limits, or result from profound disturbance occurring in the emotional sphere of the sensorium, in consequence of trouble, disappointment, misfortune of any kind, the minute mechanism of their advent is always fundamentally the same. It is by the physiological gateway that they introduce themselves into the organism; it is under the form of regular excitations that they implant, develop and perpetuate themselves; and the incalculable disorders they leave behind them are but the indirect effects of disturbances of nutrition in the nervous plexuses, proceeding from this single source—the afflux of blood too frequently provoked or too long continued.

Calmeil thus expressed the same idea: "All the so-called moral influences, whether they betray themselves by the persistence of annoyances or regrets, or take the forms of jealousy, hatred or ambitious disappointments, may concur to produce a morbid accumulation of blood in the brain capillaries." In sleep, by an inverse phenomenon, the cerebral cell rests from its labor, and the vascular irrigation is modified simultaneously. It is well established that the brain is anæmic during sleep, and hyperæmic during mental activity. We thus understand how prolonged efforts of the mind, and emotions of all sorts, from the very fact of their awaking the activity of the brain, are calculated to have an immediate effect upon the essential phenomena of brain nutrition.

Sustained intellectual work is accompanied with loss of substance on the part of the brain cell, which burns its own essential constituents. It stands to reason that if the cerebral cell expend its reserve material during its diurnal activity, it is absolutely necessary, to enable it to continue alive and in health, that it shall repose and sleep and recuperate regularly. Sleep is to the brain what needful repose is to the muscles—the necessary condition of its health. Every one knows how great is the number of persons who have sown the seeds of cerebral disease by a prolonged infraction of these simple laws of hygiene, and who, through repeated vigils and exaggerated expenditures of activity, have thus passed the physiological limit of the resources at their disposal, and incurred expenditures above their receipts.

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Hippocrates' *classification* of insanity into the three forms of mania, melancholia, dementia, is the same classification that obtains to-day; these forms are characterized respectively by exaltation, depression, or weakness of mind. Inasmuch as the same patient may be affected alternately with opposite states, it has been contended that this classification is unscientific, therefore both ætiology and pathology have been suggested as grounds for classification. Desirable as it might be to classify according to the morbid anatomy, our knowledge does not enable us to do so at present. Almost every writer on insanity has suggested a classification of his own, better, to his mind, than any other. Griesinger's classification was based on symptoms, and is the same as that of Hippocrates. Griesinger said that a classification based on anatomical changes which lie at the foundation of mental disorders was at his time impossible, and Krafft-Ebing says it is still impracticable.

Pathological anatomy shows us, even at present, that in the emotional states, that is, the first stages of insanity, it is rare to find important organic alterations, or such as are not capable of complete removal, while in the terminal stages very often there exist palpable changes—changes incapable of cure. We may say, then, that those cerebral lesions which give rise to the first stages of insanity—lesions not always of an identical nature, and which we, as yet, cannot generally characterize anatomically—have this in common, that they terminate, in very many cases, in those consecutive changes in the brain—in permanent anatomical lesions.

Of the many classifications but one only is given—a classification combining the ætiology with the symptomatology, and is perhaps as perfect as any that has been proposed. It is by J. Batty Tuke, and is based on the previous classifications of Schroeder van der Kolk (1852) and Morel (1860). It is as follows: (1) Idiopathic insanity, including idiopathic mania, melancholia, and dementia, also general paralysis of the insane; (2) traumatic insanity; (3) insanity associated with other neuroses (as epilepsy, hysteria, hypochondria); (4) insanity resulting from the presence of adventitious products; (5) insanity resulting from morbid conditions of the general system (as phthisis, rheumatism, syphilis, sunstroke); (6) insanity occurring at evolutional periods (as of climacteric, senile, puerperal); (7) toxic insanity.

In the description of insanity, certain words are made use of having special meanings. Thus, a *delusion* is a false belief, an altogether wrong idea, as distinguished from a wrong perception (hallucination), or a perverted perception or idea (*illusion*). An example of *delusion* is the rich man who believes himself poor, or the poor man who believes himself rich; of *hallucination*, the man who sees faces or hears voices where there are none; of *illusion*, he who actually sees or hears something, but misinterprets that something, as when the patter of rain on the roof is heard as a voice, or the portrait on the wall is seen as a living and moving reality. *Incoherence* is simply a wandering of the conversation from one subject to another—a want of continuity. *Delirium* is often characterized by incoherence, hallucinations, flitting delusions, illusions, excess of movement, rapid pulse and inability to sleep.

* * * * * * *

Acute idiopathic melancholia manifests itself in three degrees of intensity—(1) simple depression of feeling without delusions; (2) depression with delusions; (3) depression with mania or delirium. There is a very distinct difference between the depression of feeling within the limits of health and the depression of feeling resulting from morbid processes going on in the brain, and in symptoms there is a distinct line of demarcation. A mere fit of depression, from whatever cause, does not prevent a man from using his intellectual faculties; circumstances influence him, and he can review his position; but where the limit of health is passed, the normal influence of external circumstances is lost. This indication is accompanied by a gloomy apathy; the memory of the past is misery, the present is unendurable, and there is no hope in the future; every thing is black within and without, every incident feeds the melancholy, every suggestion of hope is parried, and every appeal to the reason falls dead on the ear of the sufferer. A strong tendency to suicide is frequently present, and the utmost ingenuity is exercised to accomplish this object, the whole mind being concentrated upon it.

It is unnecessary to describe the different phases of melancholia in detail. When delusions are present, they are often fearfully intense, and lead to serious results, not seldom extending beyond the patient himself. He may be governed by the idea that his own misery involves the misery of his family, and as death offers the only release from such misery, he seeks to destroy his own life and theirs. From such delusions come the fearful suicides and homicides that occasionally startle society—a parent destroys several of his children, a lover his mistress, a husband his wife, before committing self-murder. Such persons require the most unremitting and careful surveillance. The inquiry should always be made of insane persons if they have meditated suicide, or if life is a burden; and if such be the case, suicide should be feared and measures taken to prevent it. Such persons should never be left alone, for suicides are rarely committed in the presence of others.

Suicide is not necessarily an evidence of insanity. In early history self-destruction was considered an evidence of courage, and death was preferred to dishonor. This principle was inculcated by the philosophy of the time, and often self-immolation constituted a part of its religion. Suicides were committed anciently (1) to avoid pain of body or mind, (2) to vindicate honor, (3) as an example to others. Two of the most distinguished men of antiquity, Brutus and Cassius, sacrificed their own lives; so did Mark Antony and Cleopatra. After Antony's death, Cleopatra visited his tomb, over which she poured bitter lamentations, saying, " Hide me, hide me with thee in the grave; for life, since thou hast left it, has been misery to me." She then sat down to a magnificent supper, after which a peasant came to the gate with a basket of figs covered with leaves, and concealed under the leaves the asp which she applied to her bosom.

Samson, Saul and Judas Iscariot are Bible examples of suicide. Suicide was advocated by the distinguished philosopher Epictetus, who said: "If you like not life you may leave it; the door is open, get you gone! But a little smoke ought not to frighten you away; it should be endured, and will thereby be often surmounted." Zeno, the founder of the Stoics, as he was leaving school one day, fell, put a finger out of joint, and went home and hanged himself. It appears that the Roman laws respecting suicide were made in consideration of how the suicide would affect the treasury, and the magistrate had the power to refuse or permit suicide, and if it could not be shown that he was suffering at the time from great grief, misfortune, or madness, it was deemed a capital offense, and death was the punishment. In the Island of Ceos the magistrate had the power of deciding whether a person had sufficient reason for killing himself. A poison was kept for that purpose, which was given to the applicant who made out his case. Thousands have annualy sacrificed their lives by throwing themselves under the wheels of the idol Juggernaut. A sort of fascination sometimes leads to suicide, as is seen in those who jump from heights, as towers, precipices, etc. The coolest attempt at suicide, perhaps, on record is one related of an Englishman who advertised that he would on a certain day put himself to death in Covent Garden, London, for the benefit of his wife and children. Tickets of admission *one guinea each!* Voltaire relates that Creech, the translator of Lucretius, wrote upon the margin of the manuscript the following words: "Remember to hang myself after my translation is finished." And Voltaire adds that had he been translating Ovid he would not have committed suicide.

In *mania* the same phases may be seen as in melancholia; so there may be exaltation without delusion, with delusion, or with delirium. In mania there is no depression, but rather a talkativeness, a feeling usually of well-being. Often there is incoherence, loud talk and violent gestures, a disregard for conventionalities and sometimes for decency. Now and then a delusion is the only sign of mania. There may be also the so-called reasoning mania, moral insanity, in which the patient reasons rightly from false premises; this form is rarely recognized by the laity, and too seldom by the profession.

Dementia is generally seen as the terminal stage of either mania or melancholia, although it may be an acute mental disorder due to sudden excitement, especially fright. The patient is dull, stupid, apathetic, pays little or no attention to what takes place about him, is often quite helpless, and therefore needs to be fed, dressed, etc. Extreme cases seem utterly bepond hope, and some are hopeless, but a good proportion gradually emerge into a state of convalescence and final health. Light forms of dementia are seen in those who are unable to give their age, place of residence, the year, month, day, who laugh without cause, and so on.

General paralysis of the insane is more often seen than recognized. It may begin with mental or physical symptoms, and sooner or later the following are manifest: Difficulty of speech, unsteadiness of gait, tremor of the tongue and facial muscles, inequality or contraction of the pupils, and coincident with the foregoing there may be restlessness, irritability, impairment of memory, extravagance of ideas, and generally a feeling of well-being. Optimism is the characteristic symptom, and is manifested by a degree of morbid vanity, general exaltation, and a disposition to regard every thing in the best possible light. As the disease progresses the patient fancies himself very rich, powerful, he may buy useless articles, houses, lands, make extravagant offers of marriage, etc. If not influenced by any grand delusion, he is yet possessed of a feeling of contentment with himself and all about him, as shown by his answers, " splendid," " first-rate."

The *insanity shown by epileptics* is often of a dangerous sort. They are often irritable and most unreasonable, and when excited are likely to do acts of violence. Between such outbreaks they may be quiet and docile, and often show signs of dementia. Such require to be dealt with with great tact. It is safer to consider excitable epileptics dangerous.

In the *diagnosis* of insanity, great care is necessary, for growing out of it may be legal measures or confinement in an asylum. Before seeing the patient it is well to inquire of the friends as to the most prominent symptoms, the usual habits, disposition, etc.; if he has delusions, hallucinations, illusions; if he eats, sleeps, exercises. His writing may be examined, the furniture and other articles in his room; his pupils, tongue, gait physiognomy, gestures. Delusions, hallucinations, illusions—the symptoms so much depended on as constituting insanity—may all be absent, and yet from the conduct, disposition, habits, the diagnosis of insanity be made. The temperate may give himself to intemperance, the miser to extravagence, the religious to a life of dissipation and vice. If the change has been rapid, the diagnosis is easier. It is necessary to compare the present state of the patient, his ideas, etc., with the past. Sometimes derangement is only shown in periods of excitement, as is often seen in epileptics. Confirmation of the diagnosis may be found in the presence of adequate physical or moral cause. The deception so often practiced in order to inveigle the insane to asylums cannot be too severely condemned. They then lose confidence in those who deceive, and in the asylum in advance. If restraint is necessary, it is better to use it, but deception never.

The *treatment* of insanity is mostly symptomatic and hygienic. Certain forms are not benefited by medicines, as general paralysis, senile dementia. In insanity due to disease of the general system, or of organs away from the brain, the head symtoms are combatted by treating such diseased part. Often it is necessary to apply remedies to the head symptoms directly, as when sleeplessness precedes or accompanies the derangement. Opium is often used in melancholia, chloral hydrate to procure sleep, the bromides, and recently the hydrobromate of hyoscine has met with some favor. Too much stress cannot be laid on the importance of sleep in the treatment of nervous, and especially brain, disorders. The patient should never be allowed to go on in a state of insomnia, lest the disease, recognizable or not, functional or not, become incurable. To say that sleeplessness is a symptom due to functional disturbance, and make no effort to combat it, is criminally neglectful of the patient's interest. Sleeplessness heavily handicaps the patient, and remedies directed to other parts where the disease is supposed to be located have, therefore, less effect. The insomnia then becomes the disease itself, and when successfully combatted, the system is enabled, often without further medication, to throw off its cause. As well think of curing disease without food as without sleep. Insomnia is an unmixed evil, is in no way curative, and should be considered a most unfavorable symptom always to be treated. The digestive organs may require attention, the bowels, and great care is necessary that the patient's nutrition be kept up. When the insanity is of the emotional sort, change of scene is often of much service. The question is not, can the patient recover at home? but, are the chances more favorable there?

According to the law, as changed two or three years ago, all patients sent from Albany county are either *private*, and supported by their own money, or *paupers*. Formerly in this county, as it is still in the other counties of the state, indigent persons might be committed on the order of the county judge, and not pauperized. Under such a law the respectable citizen could receive two years' treatment at county expense without being entered on the pauper list; and being in no sense a pauper, and able in health to support himself and family, such consideration was not only fully appreciated, but deserved. The old law was therefore better than the new, and should not have been changed.

NOTE.—In preparing this paper, frequent reference has been made to, and in some instances considerable quotations taken from, the following writers: Bucknill and Tuke, Blandford, Savage, Sibbald, J. Batty Tuke, Bristowe, Fagge, Prof. Gairdner, Luys, Griesinger, Krafft-Ebing, Emminghaus, Meynert, Hammond, Spitzka.

ABSTRACTA.

SAL ALEMBROTH—SIR JOSEPH LISTER'S LATEST ANTISEPTIC.—By Edmund E. King, L.R.C.P., London, in *Canadian Pharmaceutical Journal.* It may be news to a great many to know that Lister has discarded the use of the spray almost entirely, the only cases he has used it in during the past fifteen months being operations involving the peritoneum. I have heard him say that of late he has become convinced that it was by no means due to the antiseptic properties of the spray that the good results have followed. After careful examination and study, he believes that the germicide properties in a solution of 1-40 carbolic, thrown by the spray into the air three or four feet, to be *nil*, or nearly so, and the sole benefit derived was due to the irrigation and absolute cleanliness induced.

Carbolic acid was superseded by perchloride of mercury; this, when used for dressing, was, from its forming an insoluble albuminate of mercury, irritating and thus an unsatisfactory dressing. He now uses sal alembroth exclusively in his wards for dressings, and it has so far given very fine results. It is a double mercurial salt formed by the sublimation of a mixture of pechloride of mercury and chloride of ammonium, exceedingly soluble. The salt was known to the alchemists; it has not been used in medicine in modern times. Lister prepares all his dressings now with a 1-100 solution of this, gauze cotton wool, lint, bandages, draw sheets, and where the wound is covered by the shirt, it is rendered antiseptic by dipping it in the solution and drying before the fire. To make any of these dressings, all that is necessary is to soak them in this solution and dry. It not being volatile, does not require to be kept in sealed tin cases. He also colors these dressings with aniline blue, 1-10,000, the benefit to be derived from this being that whenever an alkaline discharge comes in contact with the dressing, the blue is removed and turned reddish, enabling it to at once be seen where the discharge has been, if the quantity was ever so small and has dried up before the dressing was removed.

There is one precaution in using this dressing, and that is this: The dressing being dry and frequently handled might have some septic matter from bed clothes, hands, etc., so he always dips it in 1-2,000 perchloride just before applying it.

He is making a sal alembroth protective, which will be surcharged with the antiseptic, so that as a discharge comes through a dressing it will come in contact with this protective and be kept aseptic. Martindale & Co., 10 New Cavendish street, London, Eng., prepare this for Lister.—*N. Y. Pharmaceutical Record.*

NEW OBSERVATIONS ON URETHANE.—Coze, who has been conducting a series of experiments with a view to determining the precise physiological value of this new drug (*Bull. gén. de thérap.*, April 30, 1886), draws the following conclusions: 1. Urethane has a strong hypnotic action, causing complete muscular relaxation and, in full dose, anæsthesia. 2. It slows the pulse and the respiration, and lowers the temperature. 3. As it is only slightly irritating, it may be administered hypodermically. 4. It affects neither the secretions nor the general nutrition. 5. It is a physiological antagonist to strychnine. 6. It appears to be adapted to cases of convulsions, especially those of a tetanic character.—*N. Y. Medical Journal.*

THE INJECTION OF OIL OF TURPENTINE INTO OLD SINUSES.—Cecchini (*Anuali universali di medicina; Abeille méd.*) reports a number of cases in which he succeeded in causing the closure of old sinuous tracts by injecting into them a few drops of oil of turpentine with a common hypodermic syringe. The best results, he says, are obtained when the drug is used pure, but it may be mixed with some bland oil, or even with a solution of morphine, as the pain is something considerable. By this simple treatment the author has cured five anal fistulæ and six sinuses connected with carious bone. The turpentine is thought to exert a stimulating action on the walls of the sinus, whereby healthy granulation is promoted.—*N. Y. Medical Jourual.*

HYPODERMIC INJECTION OF EUCALYPTOL IN PHTHISIS.—Roussel (*Allg. wiener Med.-Ztg.*) reports favorable results following the use of this treatment; purulent sputa became mucous, the appetite and strength returned, and the cough was relieved.—*N. Y. Medical Jourual.*

NITRITE OF AMYL AS AN ANTIDOTE FOR OPIUM.—*L'Union Médicale* reports the case of a person who took two ounces of laudanum, and showed every symptom of opium poisoning—coma, small pulse, feeble and infrequent respiration (six to the minute), coldness and cyanosis. Belladonna proved useless, while inhalation of nitrite of amyl immediately improved and ultimately restored the patient.

[See THE MEDICAL ANNALS, May, 1882, page 241 *et seq.*, for earliest original investigation of this subject.]

OVER-EXTENSION IN THE TREATMENT OF FRACTURE OF THE THIGH.—Dr. Fischer (*Centralblatt fur Chirurgie*) reports a case of fracture of the thigh in a child six years of age, which was treated by extension with weight and pulley. A cure was obtained in four weeks, but it was then found that the ligaments of the knee had been so stretched that the ends of the tibia and femur slid over each other with an audible sound, and hyper-extension occurred when an attempt was made to stand. The trouble was relieved by retention for a month in a silicate of soda splint. The cord had passed over two pulleys, and a weight of eleven pounds had been used. Dr. Schmidt, in referring to this case, reports a similar instance of over-stretching of the knee in an old woman with fracture of the femur just above the condyles. In both cases the trouble was due to the continuous traction maintained by plasters attached only to the leg and pulling through the knee-joint.—*Canada Lancet.*

[See "Case of Over-Extension for Fracture of Femur," by W. A. Merritt, M.D., Cherry Valley, N. Y., in THE MEDICAL ANNALS, December, 1884, page 363.]

MRS. LELAND STANFORD, wife of the millionaire senator from California, has purchased a piece of land on Washington avenue, Albany, adjoining the site of the old Lathrop mansion, and it is stated that on the whole property she will erect a handsome and well-appointed hospital for old men and women, as a memorial of her parents.—*Boston Medical and Surgical Journal; Maryland Medical Journal.*

THE MEDICAL RECORD states that a physician in New York city is said to have the following inscription on his billheads: "A patient's gratitude to his doctor is a part of his disease, and is most declared when the fever is highest, cools off during convalescence, and entirely disappears with the complete return of health. All bills due upon presentation. Office prescriptions and attendance strictly cash."

A SOLUTION OF MERCURY AND UREA FOR HYPODERMIC USE.—Schutz (*Dtsch. med. Woch.*, 1885, No. 14) uses this solution:

Urea..........................	4 grains.
Corrosive sublimate..........	15 "
Distilled water..............	3 ounces.

Fifteen minims are to be injected daily.—*N. Y. Med. Journal.*

Dr. Cotton, of Meadville, Pa., has favored the *Cleveland Medical Gazette* with the following translation of an epigram written by Cordus in the sixteenth century, which illustrates the estimation in which men held the medical profession three hundred years ago:

> " The physician like an angel seems
> When he in the sick-room brightly beams;
> And like unto a god is he
> When he has removed the malady.
> But in a different light we view
> The doctor when his bill is due;
> Our altered eyes we at him level,
> As though he was the very devil.

A New Test of Medical College Standing.—The Illinois State Board of Health has resolved to recognize no medical college as of good standing, the aggregate of whose graduates amount to forty-five per cent. of its aggregate matriculates during a period of five years ending with any session subsequent to the session of 1885–6.

Cocaine in Sea Sickness.—Two teaspoonfuls of solution of 1 in 1,000; best administered before vomiting, for after that its power over the affection is diminished. Repeat every two or three hours.—*Western Medical Reporter.* Half-grain dose is advised in *The Medical Record.*

Dr. Adolph Kessler says that cocaine is of no use in seasickness, and does harm. Cocaine seems to paralyze the motor nerves of the stomach, thereby hindering vomiting, which is only apt to give relief. Moderate doses of chloral hydrate and abstinence from food and drink have acted well according to his experience.—*Nat. Druggist.*

Artificial Cocaine.—Merck is said to have prepared cocaine by synthesis. Cocaine is benzoic methylecgonine. Benzoic ecgonine is treated with iodide of methyl in slight excess in the presence of methylic alcohol at 100° C.; the excess of iodide and methylic alcohol is driven off by heat; from the resultant syrupy liquid, cocaine is extracted. This artificial cocaine melts at 98° like its prototype, and possesses all the reactions of the natural product.—*Canadian Practitioner.*

Vinegar and Yolk of Egg in the Treatment of Lupus Erythematosus.—Brocq (*Jour. de méd. de Paris,* Jan. 17, 1886; *Dtsch. Med.-Ztg.,* May 10, 1886) reports that in a number of cases he has produced excellent effects with a paste composed of equal parts of wine vinegar and yolk of egg. The mixture is allowed to stand for twenty-four hours, and is then penciled on the affected parts every second, third or fourth evening. An energetic method is to apply a paste of vinegar and hard-boiled yolk of egg. This is kept applied all night, and in the morning the part is washed with black soap.—*N. Y. Medical Journal.*

ALBANY MEDICAL ANNALS:

A Journal of the Medical Society of the County of Albany.

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Vol. VII. JULY, 1886. No. 7.

BOOK NOTICES.

A COMPEND OF PHARMACY. By F. E. Stewart, M.D., Ph.G. Philadelphia: P. Blakiston, Son & Co., 1886. 12mo, pp. 196.

This excellent little manual is the eleventh in the Quiz-Compend series, several of which we have heretofore highly commended. It is based upon Professor Remington's "Practice of Pharmacy," and is not a text-book, but, in the words of the author, "is intended for the sole purpose of aiding the student in connection with his lecturer and text-book, and will not do as a substitute for either." Used for the purpose of cramming or looked upon as short cuts to knowledge, such books are harmful or valueless, but used aright they are real aids to the student, and often very useful to the practitioner or practical pharmacist. Few students can take such notes of lectures as will be of much value to them in their subsequent study, and frequently they are thrown aside without an attempt even being made to decipher and make use of them, but such a book as this of Dr. Stewart's may be used to accompany any lecturer on pharmacy, and if an interleaved copy be employed and such additional matter as may seem necessary recorded and those portions not discussed by the lecturer marked out in the text, a good summary of the course will be at hand, vastly better than a blurred mass of hastily written, inexact and incomplete notes. Nothing better as a guide in subsequent study can be devised, and, as without such study little real progress can be made in any of the branches taught in our medical and pharmaceutical schools, such outlines as this are most helpful to the systematic and painstaking stu dent. Dr. Stewart's little book is a marvel of thoroughness, and yet so concisely worded that it covers less than two hundred pages, and may easily be carried in the pocket. No review of the contents need be given, since they cover the whole domain of pharmacy, and it is sufficient to say that the condensation has been most admirably done. The typographical arrangement of the work is particularly to be commended, the separation of the paragraphs and the judicious use of different kinds and sizes of type greatly facilitating quick and easy reference. We congratulate both author and publisher on the success of their undertaking, and heartily recommend the compend to all students of pharmacy and to physicians and others who desire a handy little book for occasional reference. W. G. T.

A MANUAL OF DIETETICS. By J. Milner Fothergill, M.D., Edin., Physician to the City of London Hospital for Diseases of the Chest (Victoria Park); Hon. M.D. Rush Medical College, Chicago, Ill.; Foreign Associate Fellow of the College of Physicians, Philadelphia. 8vo, extra muslin. 255 pages. Price, $2.50. New York: William Wood & Company.

The first part of the book gives ten chapters on "Foods, their Preparation and their Digestion," and includes Beverages, Canned Goods, Artificial Digestives, etc. The second part treats of the adaptation of certain foods to definite conditions and different diseases, and includes a chapter on "Food Given otherwise than by the Mouth." The first part is analogous to Materia Medica; the second part, to Therapeutics.

While the subject, "Dietetics," is not strictly modern, yet much modern thought has been bestowed upon it, as a perusal of the book will show. "There is much more to be said for feed and feeding in disease than at first sight seems probable."

THE DISORDERS OF MENSTRUATION. By John N. Upshur, M.D., Professor of Materia Medica and Therapeutics in the Medical College of Virginia. New York: G. P. Putnam's Sons.

The author in his introduction gives evidence of keen sympathy with suffering humanity, a full appreciation of woman and the ills which she is heir to, and regards efforts towards the alleviation of which as the noblest calling of man.

Taking up the anatomy of the uterus and its appendages, the physiology of menstruation, etc., he proceeds to illustrate the causes of these various disorders, a good proportion of which originate at or about the period of puberty, through ignorance or neglect of parents. Beginning with amenorrhœa, he takes up the whole list of these irregularities to the menopause.

The author draws largely from works already extant, sometimes in support of his own theories, and again that he may illustrate the incorrectness of the views of others.

It requires considerable courage and assurance, which should be backed by no little experience, to take issue on these subjects with such authorities as Emmet, Thomas and others.

We cannot say that the work contains any thing especially in advance of that which has been written by others. Still, is a neat little soft-covered volume of 200 pages, inclusive of index, and no doubt will find many admirers. B. U. S.

DISEASES OF THE STOMACH AND INTESTINES. A Manual of Clinical Therapeutics. By Prof. Dujardin-Beaumetz, Physician to the Cochin Hospital; Member of the Academy of Medicine and of the Council of Hygiene and Salubrity of the Seine; Editor-in-Chief of the *Bulletin Général de Thérapeutique*, etc. Translated from the fourth French edition by E. P. Hurd, M.D., President of the Essex North District Medical Society; Member of Massachusetts Medical Society, and of the Climatological Society; one of the physicians to the Anna Jacques Hospital, Newburyport, Mass. Being Vol. V., May number, of Wood's Library for 1886. New York: William Wood & Company.

"My friend, Dr. Hurd, of Newburyport, to whom I am already indebted for an excellent translation of the third volume of my 'Leçons de Clinique Therapeutique,' has asked permission to give to the American medical public such portion of the first volume as pertains to Diseases of the Stomach and Intestines. I am quite willing to accord to him this privilege.

"The living cell produces toxic alkaloids, leucomaines, which are constantly being eliminated by the different emunctories of the economy, and in particular by the digestive tube. * *

"In this work * * enough is stated to show the important practical conclusions deducible from these researches of Gautier and Bouchard, and the fresh impetus which they have given to the study of gastric affections." * *—*Author's Preface.*

The notes, which cost the author "great labor," are placed after each chapter, so that the reader must either vigorously hunt for them or indolently consider them inaccessible, but they are valuable when found.

Every thing written by this noted author is prized by its readers. L. H.

Dermatologische Studien. Zweites Heft. Ichthyol und Resorcin, als repräsentanten der gruppe Reduzierender Heilmittel von Dr. P. G. Unna. 86 pages, 8vo. Hamburg und Leipzig, verlag von Leopold Voss. 1886.

EXCHANGES, PAMPHLETS, ETC.

Albany Medical College, Medical Department of Union University. Catalogue of 55th Session, 1885–6, and Announcement for Session 1886–7. Burdick & Taylor, printers, Albany, N. Y.

Association of the Alumni of the Albany Medical College. Proceedings of the Thirteenth Annual Meeting, March 2 and 3, 1886, Commencement Exercises and Alumni Dinner. Burdick & Taylor, printers.

Albany College of Pharmacy, Department of Pharmacy, Union University. Catalogue of 1885–86 and Announcement for 1886–87. Burdick & Taylor, printers.

The Boston Medical and Surgical Journal is issued weekly, not monthly, as misprinted in our last.

American Association for the Advancement of Science. Circular of thirty-fifth meeting, Buffalo, N. Y., beginning August 18, 1886.

MEDICAL NEWS.

The Alumni Lectures.

The Association of the Alumni of the Albany Medical College have devised a free public series of Alumni Lectures. The first lectures of the series were delivered in 1885, by Professor William H. Thomson, M.D. (A. M. C., '59), on "The Germ Theory of Disease;" and the second course was given by the late Professor S. O. Vander Poel, M.D. (A. M. C., '49, honorary), on "Hygiene: Its Relations to the Profession and to the General Public," March 2 and 3, 1886.

For the coming year the Alumni Lecture Committee had earnestly desired to secure that genial friend and favorite of our Alumni, Professor Henry Darwin Didama, M.D. (A. M. C., '46), of Syracuse, N. Y., Professor of Principles and Practice of Medicine and Clinical Medicine, in the College of Medicine of Syracuse University, and they now take pleasure in announcing that the course of Alumni Lectures for 1887 will be delivered by him.

Professor Didama was the first President of our Association, and those who were present at the Alumni meeting of December

22, 1874, together with all those other Alumni to whom he is known personally or by reputation, will, we feel assured, greet this announcement with pleasure.

Next Alumni Day occurs March 16, 1887, and notice of the hours and place of delivery of the Alumni Lectures, together with the subject of the same, will be announced in due time.

Albert Vander Veer, M.D.,
Herman Bendell, M.D.,
Lorenzo Hale, M.D.,
Committee.

The American Rhinological Association will hold it fourth annual meeting at St. Louis, Mo., on the 6th of October next.

PERSONALS.

—Drs. H. S. Paine ('81) and C. M. Paine, of Albany, are members of Prof. Armand de Potter's seventh annual party of traveling tourists. The party sailed from New York June 5, and are expected to return in September. In July they visit Berlin, Dresden, Munich, Venice, Naples and Rome, spending nearly a week at the latter place, and reach Switzerland before the first of August.

—Dr. W. A. Hall (A. M. C., '75), who has been in active practice at Fulton, N. Y., for the past nine years, has removed to Syracuse, N. Y., and will occupy the office of the late Dr. R. W. Pease, No. 38 Montgomery street, and will devote special attention to surgery and the surgical diseases of women.

—Dr. J. J. D. McAllister ('79), of Albany, sailed for Europe June 26.

—Dr. Joseph D. Craig ('84), of Albany, sailed from New York on Saturday, July 17, on the "Etruria," in company with John A. DeRemer, Esq., of Schenectady.

—Dr. Wesley M. Carpenter, editor of *The Epitome*, New York, has been appointed Clinical Lecturer on the Practice of Medicine in the University of New York.

—Dr. Pierson C. Curtis ('84), of Round Lake, N. Y., was married to Miss Matie Niles, of Hoosick, June 23, 1886.

—Dr. Arie V. Klock ('86) is practicing at St. Johnsville, N.Y.

—Dr. Alfred M. Leonard ('82), Cleveland, Oswego Co., N. Y.

MEDICAL SOCIETY OF THE COUNTY OF CHEMUNG.

Abstract of the Minutes of the Fiftieth Annual Meeting.

The annual meeting of this society was held on Tuesday, June 15, at 11:30 A. M., in the lodge-room of the Masonic Temple at Elmira.

The minutes of the previous meeting were read by the secretary, Dr. Frank W. Ross, of Elmira, and were approved.

The following officers were elected for the year: President, Dr. John E. Weaver, Elmira; vice-president, Dr. R. P. Bush (assemblyman), Horseheads; secretary, Dr. J. H. Price, Elmira; treasurer, Dr. William Woodward, Big Flats; Censors, Drs. Henry Flood (mayor), T. H. Squire, C. W. M. Brown, Hamilton D. Wey and F. W. Ross, all of Elmira.

Among the physicians present were: (Chemung county), Dr. A. H. Baker, Wellsburg, president; Drs. R. P. Bush, W. E. Colgrove, W. H. Davis, Horseheads; Dr. William Woodward, Big Flats; Drs. Ebenezer Gere, F. W. Higgins, of Chemung; Dr. W. H. Jennings, Blossburg; ex-Assemblyman Dr. George M. Beard, Millport; Dr. J. H. Cole, Gilletts; Dr. R. R. Chilson, Bentley Creek; Drs. C. W. Brown, C. W. M. Brown, Henry Flood, H. H. Ford, P. Heldrich, G. V. R. Merrill, J. V. Moroney, F. B. Parke, H. D. V. Pratt, J. H. Price, H. H. Purdy, D. H. Reardon, E. A. Reilly, F. W. Ross, C. M. Spaulding, C. L. Squire, T. H. Squire, S. F. Stagg, M. S. Watkins, J. E. Weaver, H. D. Wey, William C. Wey, all of Elmira; (Ontario county), Dr. Harvey Jewett, Canandaigua; (Schuyler county), Dr. J. F. Barnes, Watkins; Dr. George M. Post, Havana; Dr. F. P. Roper, Cayuta; (Steuben county), Dr. H. R. Ainsworth, Addison; Drs A. H. Crittenden and John Mitchell, Bath; Dr. H. C. May, Corning; (Tioga county), Drs. L. H. Allen and R. D. Eastman, Owego; (Rensselaer county), Dr. W. W. Seymour, Troy; (from Pennsylvania), Dr. Charles Tracy, Troy, Pa., and Dr. Charles Voorhees, Daggett's Farm, Tioga county, Pa.

Dr. T. H. Squire, in the name of Mrs, Winton, of Penn Yan, widow of the late Dr. Winton, first vice-president of the society, presented a portrait of that physician to the organization. It was received and the secretary was instructed to convey to Mrs. Winton an expression of the appreciation and the thanks of the society therefor.

President A. H. Baker, M.D., of Wellsburg, delivered the annual address, upon the subject of "Benevolence and Fraternity in the Medical Profession."

Dr. William C. Wey (A. M. C., '49) followed with a historical sketch of the society, which was organized May 3, 1836, with fifteen members, according to the law of the state which required all physicians to become members of a county society.

Dr. T. H. Squire gave an address on "The Advance in Medicine and Surgery during the Last Fifty Years."

The poem commemorating the occasion was read by Dr. William Woodward. It was entitled "The Doctor," and elicited much applause.

At the close of the medico-literary programme, the society adjourned to the Rathbun House, where the banquet was served.

ALBANY
MEDICAL ANNALS:
A Journal of the Medical Society of the County of Albany.

Vol. VII. AUGUST, 1886. No. 8.

CHOLERA, AND HOW TO DEAL WITH IT:

Being a Report on the Cholera Epidemic in Egypt in 1883;

AND

A PAPER READ AT THE INTERNATIONAL MEDICAL CONGRESS AT COPENHAGEN, ON THE PROPHYLACTIC, MEDICINAL, HYGIENIC AND QUARANTINE MEASURES TO BE ADOPTED DURING THE PREVALENCE OF CHOLERA.

BY J. A. S. GRANT-BEY, A.M., C.M., M.D., LL.D.,

Senior Surgeon to the Egyptian Government Railway Administration; Medical Adviser to Her Britannic Majesty's Consular Court, Cairo; Commander of the Imperial Order of the Medjidieh; Chevalier Laureate and Cross of Merit of the Society "Chevaliers-Sauveteurs des Alpes Maritimes," Etc., Etc., Etc.

The propagation of a generally unaccepted doctrine, in science or religion, has done more for the enlightenment of the world than the preaching of universally undisputed truths. Conflicting views call forth our best efforts.

Report on the Cholera Epidemic of 1883.

An epidemic of true cholera, such as is prevalent in India, broke out suddenly at Damietta, on June 22, 1883. This was verified by a commission of medical men sent by the government to Damietta on June 24. I was a member of that commission. The disease spread rapidly from town to town, following the tracks of communication, more markedly, however, by *river* and *railway*. An attempt was made to confine the disease to the different towns where it appeared, partly by isolating the towns infected, and partly by isolating individual houses. Under the pressing circumstances of the case, whatever measures were decided on had to be carried out quickly; hence, no doubt, some inconvenience was experienced by those confined within the *cordons sanitaires*, because the whole machinery of communication was suddenly thrown out of order, and it took some time before arrangements could be made for passing food, etc., through the *cordons.*

I am not in a position to assert that the *cordon sanitaire* was the proper measure to adopt, because of the impossibility of making it perfect. I would only make this remark, that, in 1865, a cholera epidemic commenced at Alexandria on June 11, and reached Cairo on the 17th of the same month (*i. e.*, after six days). No sanitary measures of any kind were then adopted, and, at the end of the epidemic 61,000 deaths were registered from cholera alone. This time the epidemic commenced at Damietta on June 22, but it did not reach Cairo till July 15 (*i. e.*, after twenty-three days), although Alexandria and Damietta may well be compared together as being in daily railway communication with Cairo. The conclusion to be drawn from this is that even imperfect *cordons* retard the progress of the malady, thus giving time for other towns to make sanitary preparations for the approaching disease.

Notwithstanding, however, the amount of energy displayed in burning down the filthy quarters of towns, in establishing *cordons sanitaires*, in the free use of disinfectants, and in employing extra English and Indian experience, the sum total of the deaths from cholera during the epidemic amounts to upwards of 56,000.*

It follows from this that every thing in the country was more or less upset for nearly two months, with the result of obtaining a mortality of 4,000 less than the epidemic of 1865, when trade was not in any way interfered with by sanitary measures. This is a scientific victory, but gained at a fearful cost to the state. Probably before another epidemic of this kind occurs methods of stamping out the disease will be discovered that will permit of free intercourse between infected and non-infected places without endangering the public health. In the meantime, however, science cannot be blamed for suggesting measures that ought to be successful (if properly executed), even in an unsanitary and half-civilized country, while an epidemic is raging; and, in such a country, the measures to be adopted to prevent the spread of an epidemic must necessarily be different from those that are perfectly applicable to a country in a good sanitary condition. Who would stand near and, unconcernedly, allow a lighted torch to be applied to, or even brought into close proximity to, a mound of gunpowder? Of course, one may say, "If the near approach of the light cannot be prevented, why not remove the powder? Is it an impossibility?" Well, to remove it *en masse* is quite impossible, and there is no denying that as long as any of it remains there is danger of an explosion. While it is being cleared away, therefore, measures must also be put into execution for extinguishing every spark that may come within reach of the explosive matter.

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* Since the above was written it has been ascertained by a searching enquiry that the mortality of the epidemic of 1883 comes very near 60,000.

If the propositions of the much-maligned sanitary board had been executed by the government, that retains the executive power in its own hands, I do not hesitate to say that the last epidemic spark would have fallen comparatively harmless on the clean and well-ordered towns and villages of Egypt. As it so happens, however, it has fallen on nothing but explosive material, which is in overabundance throughout the length and breadth of the land. The different routes followed by this epidemic clearly prove that the germ of the disease, whatever the nature of it may be, is not carried by the wind as a living active agent, else we should have had the malady invading Cairo long before it made its appearance there; for the wind was steadily, day by day, blowing directly from Damietta towards Cairo. We find, however, that before the malady reached Cairo, it had gone as far east as Port Said and as far west as Alexandria; and it actually broke out at Geezeh before it came to Cairo, and at Siout before it showed itself at Benisouef. This militates against the lines of communication, and especially the railway, which transfers infected persons and things in a remarkably short space of time from one district to another. The important question, therefore, comes to be whether some sanitary measure might not be carried out successfully that would permit of the running of trains as usual without being prejudicial to the public health. I have hinted above that such measures have already been submitted, from time to time, for the approval of the government, by the sanitary board; but, whether approved or not, the government has not carried them into effect.

One significant fact may here be mentioned, that, after the Alexandrians had almost exhausted the usual vocabulary of words for denouncing the *cordons* as long as the disease kept at a respectable distance from them, they speedily shut themselves up (even against the counsel of the sanitary board) from having any communication with the rest of Egypt when the cholera broke out at Damanhour. Thus for a time, the trains did not enter Alexandria, so that there were two centers of government, one at Alexandria and one at Cairo, the one being often at conflict with the other, from insufficient knowledge of each other's situation, or from being misinformed and misled. This, however, did not prevent energetic measures being carried out against the disease by the railway authorities. At the beginning of July, Mr. Timmerman caused an abundance of disinfectants to be sent to the different stations, with directions how to use them. On July 8, I examined into the sanitary condition of the Cairo station, the Boulaq workshops, and the town telegraph office and outhouses, and I had to make a special report on the last. On July 9, I sent a long communication to the board, describing more particularly the different disinfectants, and laying down rules for their most effective use, besides giving general sanitary instructions. On July 14, when the malady was raging at Geezeh, at our very doors, by the request of the board I drew up with considerable pains more elaborate instructions* about cholera, and indicated the remedies that should be used, viz.:

1st. "A mixture," of which the following is the composition and the instructions for use:

℞	Tincturæ opii..............	℥ ss	
	Spiritus camphoræ..........	℥ ss	
	Tincturæ capsici...........	℥ ss	
	Chloroformi................	ʒ iss	
	Spiritus vini rectificati...ad	℥ iiss	M.

Signetur.—For the premonitory diarrhœa of cholera, twenty drops for an adult, and five drops for a child, in half a wineglass of water or chamomile tea, every hour or every two hours, etc., till diarrhœa ceases; but if vomiting or cramps set in, then leave off the mixture and give the "Anticholérique Pasteur," of which the following is the composition and mode of administration:

℞	Hydrargyri bichloridi.....	gr. ij	
	Spiritus chloroformi......	ʒ x	
	Spiritus camphoræ........	ʒ v	
	Tincturæ lavandulæ co....	ʒ ss	
	Spiritus rectificati......ad	℥ ij	M.

Signetur.—To be used when diarrhœa cannot be checked, and vomiting or cramps commence; a teaspoonful (ʒ j) to an adult, and thirty drops to a child, in chamomile tea, every quarter of an hour, every half-hour, every hour, etc., according to urgency of symptoms.

On July 15, the epidemic reached Cairo, and its suburb Boulaq was devastated by it. Out of 1,800 men employed at the Boulaq railway workshops, fifty-nine died of cholera. Many others who were attacked recovered after the prompt use of the remedies, and most of those who died did not take the medicine.

Here let me quote at length a letter received from M. Choisy, an intelligent observer, though not a medical man, who gives it as his opinion that the "Anticholérique Pasteur" saved many lives, and that if all the employés at Boulaq had taken it in time, not one would have succumbed:

BOULAQ, 20th *October*, 1883.

Monsr. le Docteur Grant-Bey:

Monsr.—Par votre note, present mois, vous me faites l'honneur de me demander mon appreciation sur les effets obtenus par les medicaments qui ont été fournis par l'administration des chemins de fer au personnel des ateliers de Boulaq où le fléau a malheureusement fait trop de victimes.

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* Printed in full in the ALBANY MEDICAL ANNALS, September, 1885, pages 272 *et seq.*

S' il etait de ma compétence je pourrais certainement vous donner bien des details sur les differentes phases que presentait le mal dans sa marche meurtrière, mais je prefère m'abstenir d'autant plus que vous, cher docteur, êtes plus à même que moi d' en définir clairement le diagnostic.

Je puis seulement vous dirè que grâce à l'Anticholérique Pasteur j'ai pu sauver beaucoup de monde et si tous les employés du personnel de Boulaq avaient pu prendere à temps ce precieux remède, pas un n'aurait succombé.

Du reste vous avez pu vous rendre vous-même à l'evidence car je n'ai jamais manqué de vous faire demande toutes les fois que vos lumières nous ont été necessaires apres l'enrayement de la maladie par l'Anticholérique Pasteur et conformement aux prescriptions écrites dont chaque boite êtait munie.

Agreez, cher docteur, l'assurance de ma parfaite consideration.

Signé, Choisy,
Sous-Superintendent des Ateliers de Boulaq.

My own personal experience, both in the railway and in private practice, confirms me in the view that cholera is caused by a *living organism*, and that *corrosive sublimate* is the best remedy yet discovered as an anticholeraic. From the different departments of the railway service no fewer than sixty-eight employés came under my personal medical care for cholera. Of these, fiteen died, being a death-rate of only 22 per cent. Now we learn from the statistics published by the Indian Army Medical Department for 1881 that the number of admissions for cholera in Bengal was 159, of which 116 died, being a death-rate of 72 per cent.

In private practice in India, the cholera death-rate is given as 66 per cent. This proves that the cholera medicine used in the railway service had a very beneficial effect, notwithstanding that the administration of it was frequently left in non-professional hands.

With respect to the incubative stage of cholera, most of the cases that came under my notice had an incubation of from twenty-four hours to five days. In the Eygptian army there was a case of not less than nine days, and in the army of occupation there was a case reported of sixteen days' incubative stage.

At Boulaq, I went from house to house, visiting the choleraic cases, and giving the medicine (of which I had always a good supply in my carriage) with my own hands. The poor natives would crowd round my carriage, some with choleraic children in their arms, others to take medicine for those sick in their houses, which were too far away for me to visit. Their demands were listened to, and, as far as possible, attended to, in the midst of those howling the death-wail for their departed friends.

There cannot be the shadow of a doubt that the cholera was brought to Boulaq from an infected district, for in my medical register* there is rather a decrease than an increase of the diseases allied to cholera up to July 15, when the epidemic manifested itself in Cairo and Boulaq; and the death-rate from general diseases was also lower than the death-rate of the previous year at the same time. This, I understand, was also true of Damietta up to June 22, when the cholera suddenly declared itself there, clearly proving that, wherever the malady came from originally, it was certainly imported into Damietta, a town that proves to be the rendezvous of thousands of Arab firemen, whose sole business is to get employed on steamers sailing between Port Said and India, and who, whether there be a quarantine or not, on their return voyage are allowed to go on shore, or do so by stealth at No. 3 kilomètre station,* which is in direct communication with Damietta by ferry-boats.

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* Vide tables below.

A good example of the transmissibility of the disease by human intercourse, and of the immunity of a town from a second attack during the course of the same epidemic, is furnished by the following narrative. Several native merchants from a town called Codiya, in the Siout district, Upper Egypt, about 360 miles from Alexandria, spent fifteen days in Alexandria on on business while there were still some cases of cholera there, but long after the epidemic had ceased in other parts of the country. Their voyage home was by boat, and it occupied about sixteen days. On the way they touched at many of the towns; and one of their number who had died of cholera on board the boat was buried at a village name Fuah. But not till they reached Codiya (a village† that had, up till then, escaped the cholera), did the germ they brought with them find a congenial virgin soil for propagating itself, when a slight epidemic raged there for several days and then died out.

My railway medical registers, being very accurately kept, have proved to be of considerable value in deciding for the non-endemicity of cholera in Egypt.

From the beginning of the year 1878 up to July 15, 1883, I had registered 85 cases of diarrhœa and 219 of dysentery, not one of which was fatal. In August, 1878, there were two cases of cholerine (purging and vomiting with cramps) in Arabs at the Boulaq railway works, but they were only a few days off duty on account of it. In July, 1882, while at Alexandria, whither I had to flee on account of the rebellion, but where I continued to fulfill my duties as senior surgeon to the administration of railways, telegraphs, and Port of Alexandria, I treated the French driver, Bohn Louis, for an attack of cholerine, which soon passed off, so that he was able to resume duty after two days. During this period of nearly six years, I had 6,475 of the employés ill, and under treatment for different ailments; but while diarrhœa and dysentery were not at all uncommon amongst them, it is evident that they cannot be called *fatal* maladies, at any rate, as far as railway employés are concerned, seeing that there is not a single case registered as having had a fatal termination. There having been only two cases of cholerine at Boulaq in August, 1878, and no more cases there (having similar symptoms) till July 15, 1883, when epidemic cholera broke out, is sufficient proof that cholera is *not endemic* in Egypt; for, if it were, we should be having cases at Boulaq every day, as it affords as good a nidus for the malady as any town in Egypt, and is inhabited by just the class of people who are most likely to be affected by any endemic disease.

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* And at other stations as well.

† Like many other towns in Upper Egypt, Codiya is inhabited by both Moslems and Christians, so that one part of the town is called Codiya el Islam and the other part is called Codiya en Nussara. The merchants referred to were Moslems, and the cholera affected the Moslem part of the town only, and did not spread either to the Christian quarter of the town or to any of the neighboring towns, but speedily died out after carrying off a few victims.

Dengue fever may now be said to have become epidemic in Egypt, as it has been more or less prevalent at Cairo since the epidemic of it in 1880, and I hear of its existence in other towns of the Delta. This favors the opinion that cholera also may become endemic after some epidemic of it.* It certainly has not been endemic since the epidemic of 1865, else I should have had some knowledge of it, and cases must have appeared in my medical register; and the fact that I have registered two cases of cholerine in 1878 is a proof that I have drawn a distinction between such cases and ordinary diarrhœa.

The use of *corrosive sublimate* as an anticholeraic came quite naturally to me, as I have been administering it with marked success for some years past in the gastro-enteritis of teething children (of course in very minute doses, one-fiftieth of a grain or even less). This treatment for gastro-enteritis was not all original, as I had seen it recommended (if I mistake not) in *The British Medical Journal*† several years ago; and remembering some very successful cases of cholera I had treated here during the epidemic of 1865, with frequently repeated small doses of calomel without salivating the patient, I reasoned with myself whether a portion of the calomel may not have been converted into the bichloride through the action of the gastric juice, which contains free hydrochloric acid, and whether it was not in reality this transformation which led to such happy results.

I hope others will be encouraged to try it, and then give the profession the results of their experience as to the efficacy or non-efficacy of the drug in the treatment of cholera.

The following are tables‡ extracted from medical register of

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*Fourteen months have now (17th November) elapsed since the epidemic ceased at Cairo, and nearly eleven months since it disappeared from Egypt altogether; and, notwithstanding that diligent search has been and is still being made by a select band of government officials, yet the discovery of "Egyptian Endemic Cholera" remains to be made. Endemicity of cholera in Egypt would not preclude the possibility of an importation of the epidemic form. Have we not had several importations of epidemic bovine typhus from Russia while the disease was existing endemically in the country? Fortunately for Egypt the world at large has not given the slightest credence to the endemicity theory.

†In the last edition of Ringer's Therapeutics it is also recommended for serous diarrhœa.

‡It is so far unfortunate that a medical register of the railway employés was not kept till 1878, but I have no recollection of having had a case of cholerine amongst them during the period between the end of the cholera of 1865 and August, 1878, when two were registered as such. I am quite sure that if any similar cases had occurred I should not have forgotten them, for I have no difficulty in remembering a case, presenting choleraic symptoms, that occurred in my private practice in 1871, which, I may add, had a favorable termination.

Egyptian railways and telegraphs, extending from January 1, 1878, to October 31, 1883, Cairo division, about three thousand employés, nearly two thousand of whom are engaged at the railway works, Boulaq, and for the most part live at Boulaq. They are all of the male sex, and above puberty. The other one thousand are distributed over lower Egypt.

Condensed Table from January, 1878, *to October* 31, 1883.

Years.	Diarrhœa.	Dysentery.	Typhoid.	Dengue.	Cholerine.	Cholera.	Total No. of Patients.
1878	15	30	7	0	2	0	794
1879	19	34	7	0	0	0	1169
1880	19	43	6	336	0	0	1462
1881 (nine months)	9	31	5	146	0	0	873
*1882	11	54	18	97	1	0	985
1883 (ten months)	24	31	27	218	0	68	1192

Detailed Table for the Year 1883 *up to October* 31—1,192 *Patients.*

Month.	Diarrhœa.	Dysentery.	Typhoid.	Dengue.	Cholera.
January..........	2	8	4	10	0
February....	2	1	1	15	0
March	1	3	4	18	0
April	2	3	2	34	0
May	2	4	4	21	0
June..............	0	3	1	36	0
July	3	5	1	47	38†
August...........	2	1	2	18	27
September........	5	2	1	12	3
October....	5	1	7	7	0
Totals..	24	31	27	218	68

In the above tables, extending over nearly six years, there are 97 cases of *diarrhœa* and 223 cases of *dysentery*, amongst 6,475 patients, but not one of these is registered as *fatal;* on the contrary, they all average only a few days off duty. It must, however, be noted that all these cases are, as a rule, uncomplicated, the most serious complication in any case being hemorrhoids. When diarrhœa or dysentery has set in as a secondary and fatal symptom, the cause of death has been registered under the primary disease. Hence, in abscess of the liver terminating by a fatal dysentery, or in phthisis ending by a fatal diarrhœa, the cause of death is assigned to abscess of the liver, or to phthisis, as the case may be. The ordinary uncomplicated diarrhœas and dysenteries amongst the grown-up population of Egypt cannot, therefore, be considered very fatal.

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*From July 5 to September 20, Dr. Grant-Bey was in Alexandria, having been obliged to leave Cairo on account of the rebellion.

†The first case of cholera amongst the railway employés in the Cairo section occurred at Boulaq on July 16, and, as will be seen by the above tables, there was no unusual number of cases of *diarrhœa* and *dysentery* preceding the onset of cholera to indicate that an epidemic was brewing on the spot. There can be no doubt, therefore, that cholera was brought to Cairo from an infected district.

From January 1, 1878, to July 15, 1883, a period of five years and a half, there were only three cases registered as *cholerine* (*i. e.*, purging and vomiting with cramps) amongst six thousand sick employés, most of whom, being of the lowest class, would be the first to be affected by any *endemic* disease. Two of these cases happened at Boulaq, in August, 1878. Both were Arabs, and the one was unfit for duty four days, while the other was off duty only one day. The third case was a French driver, not, however, at Cairo, but at Alexandria. He was ill only a few hours, and resumed duty after two days.

A Few Remarks on Cholera from a Practical Point of View.*

Mr. President and Gentlemen:

When I came to this Congress it was with the sole intention of listening and of learning; but as our distinguished president has asked me to tell you something of my experience of cholera in Egypt, I most willingly acquiesce in doing so, not, however, to wrangle about the origin of the disease, but to discuss more particularly what are the best measures to be adopted for its control and ultimate extinction.

Gentlemen, it has been said that we know nothing about cholera, and that, therefore, we need do nothing against it; but this statement has emanated from an extra-mural school that science does not recognize as an authority.

Gentlemen, I feel, in addressing you, that it is a piece of supererogation to state that we know a great deal about cholera, without taking into consideration the admirable discoveries of Dr. Koch that are only of yesterday, and that require further study and development before they are finally accepted by the scientific world.

But we know that cholera is *very fatal*, that it is endemic in India, and that every few years it takes a wandering fit and avails itself of every opportunity of leaving its native soil to search for "pastures new." It travels over land and over sea wherever there is human communication. Here, however, I would remark that a long sea voyage or a long desert journey is not congenial to it, so that up till now Australia has not been visited by it, and it has been ascertained that a three days' journey on the desert stamps it out of the caravan afflicted with it. It is transferred from place to place slowly or quickly according to the methods of travel adopted by human beings, whether it be by sailing ship or by steamer, whether on foot or by railway.

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*Read at the International Medical Congress at Copenhagen, August, 1884.

It is as frequently conveyed against the wind as in the same direction with it, and against the stream as with the current. It flourishes in heat and in cold, but it is more severe in summer than in winter. It is more general in low-lying districts than on the elevated lands, and in the low, unsanitary slums of large towns than in the higher and more cleanly quarters. It has been proved that contaminated drinking water has been, and is still, one of the principal media for propagating this disease, which numbers amongst its victims all classes and conditions of men.

Every medical man who has passed through a cholera epidemic can give his own experience in grappling with this formidable malady, and *that*, combined and compared with the observations of others, will ultimately lead to an accurate knowledge of the disease, so as to guide us not only in curing the patient suffering from it, but also in stamping it out in its habitat; and here let me say that I thoroughly endorse the opinion of Dr. Cameron (M. P.), of Glasgow, as expressed at the British Medical Association meeting at Belfast a few days ago, viz.: "If we could stamp out the cholera of India, the rest of the world would have nothing to fear." In other words, India is the country where cholera is endemic, and is therefore always a source of danger to every country having communication with it. Now, to stamp out cholera in India will be a Herculean labor, and will take many years of rigorous sanitation, and probably during that time we shall have now and again to combat the unwelcome visitor both by sea and land.

But, gentlemen, while I am a *contagionist (a microbist if you choose), and therefore an importationist as far as cholera is concerned, I am, at the same time, convinced that the commerce that imports the malady cannot be suspended, nor will it even allow of being immoderately impeded or obstructed, for thereby dishonesty is encouraged, the truth is concealed, and the malady is introduced clandestinely.

In my opinion, therefore, there is much more risk to a country by imposing a prolonged quarantine on vessels coming from infected ports than if there were to be a very short quarantine combined with an effective disinfection.

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*As far as the contagiousness of cholera is concerned, the late epidemic in Egypt has clearly demonstrated, both in the military and civil medical practice, that cholera is much more contagious than typhoid fever, and that doctors, nurses and those who rubbed the cholera patients for their cramps were proportionately more affected by the disease than the general population. Whenever the troops or gendarmerie moved from an infected to a non-infected town they established a new center of infection there. Now, if this is not carrying contagion, what is it? The Calcutta Hospital stands almost alone in showing that its nurses and sweepers have a comparative exemption from cholera, but, as it is officially denied that cholera ever exists at Calcutta in its epidemic form, this, of itself, would explain why the nurses there should be comparatively exempt from the malady; for, although endemic cholera may in a sense be contagious, it is much less so than the epidemic form of this disease. But the true reason for this alleged exemption at the Calcutta Hospital is more likely to be that Calcutta is in such a fearfully unsanitary condition that the hospital is probably one of the few establishments where sanitary measures are carried out. And it is only another proof of the contagiousness of the disease that, notwithstanding all the sanitary precautions of the Calcutta Hospital, the nurses should show a proportion of attacks at all.

As regards the cargo it could be partially disinfected while still in the vessel by fumes of burning sulphur or by any other disinfectant that could be made to permeate all through the hold of the vessel. It could then be removed to a special magazine and disinfected for twenty-four hours in a more thorough manner, space being left between packages so as to allow of the free dissemination of the disinfectant used.

In the case of rags,* more care should be taken than with any other kind of merchandise. They would have to be spread out in the disinfecting magazine and turned over several times in the twenty-four hours; but, as necessity is the mother of invention, no doubt something could be made for the rags to be spread on that would allow of the fumes of the disinfectant to penetrate from below upwards.

In the meantime the vessel itself would be undergoing a thorough cleansing and disinfecting process before another cargo is taken on board. Such officers and sailors and passengers as are not affected by the malady (for I am now speaking of an infected vessel) should be allowed to disembark after a medical inspection and disinfection.

I admit that in carrying out this plan there is still some risk, but I consider the risk is less than in the alternative plan of detaining by force the healthy and the sick for several days on a pest ship or in a lazaretto. Besides, I don't believe it can be done unless the infected vessel be immediately sent away to some distant island from which there is no chance of escape, there to undergo a purgatory of quarantine, such that even the most conscientious captains would feel themselves justified in falsifying their log in order to avoid it.

Escapes from lazarettoes are too common to allow of their being looked upon as effective institutions for preventing the spread of contagious diseases.

Then, as to those affected by cholera on board, they should be removed under special sanitary precautions to a cholera hospital. All their dirty bed linen should be either destroyed entirely by burning or heated to a high temperature by boiling or baking, and the patients themselves should be washed with a ten-per-cent. solution of carbolic acid, antiseptic pillows of cotton or of other absorbent material should be placed under them for the absorption and disinfection of the dejections, and their bodies should be wrapped in a disinfected sheet; other warm covering might then be put over this and the patients removed from the ship to be conveyed to the cholera hospital in a disinfected vehicle. In case there should be a choleraic cadaver on board, I propose that it should be buried on shore under the same sanitary precautions as I recommended for the burial of the dead cholera patients during the epidemic of last summer in Egypt, viz., to dust the cadaver with carbolic powder, then to wrap it in a disinfected sheet and have it buried as soon as possible.

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*It is well known in New York, however ignorant the rest of the world may be, that a ship-load of rags coming from Egypt during the cholera of 1865 introduced that malady into Albany, it having been admitted by the sanitary officer that the rags had been very imperfectly disinfected. Small-pox is frequently imported into Britain by rags coming from Russia.

This is the sanitary method of procedure I would recommend to be carried out when an infected vessel arrives at a non-infected port.

On the other hand, if a vessel arrives from an infected port with a clean bill of health, having had no suspected cases even during the voyage, and the cargo not being rags, I should give free pratique after a simple medical inspection; but if the cargo is rags, I should insist on having them disinfected, as well as the hold of the ship that contained them.

Then, again, if a vessel from an infected port arrives at a non-infected port with a clean bill of health, but showing that during the first part of the voyage there had been some suspicious cases on board that had either died or recovered, this would call for the special attention of the visiting sanitary officer, so as to make sure that the soiled linen of the patients had been destroyed or properly disinfected; he should also make a special point of finding out whether any one on board was suffering from diarrhœa. Cases of diarrhœa under these circumstances should be dealt with in the same way as is recommended above for cases of cholera.

Again, should a vessel from an infected port arrive at another infected port, I should adopt the same sanitary measures as if she had arrived at a non-infected port, with the view of preventing the formation of a new center of contagion which would cause a recrudescence of the disease.

I am taking it for granted that all this time the sanitary authorities on shore are alive to the situation, and have fully arranged for every emergency by establishing cholera hospitals, by flushing and disinfecting the sewers, by cleansing the streets, by causing a house-to-house sanitary visitation, etc.

While dealing with ships, however, there is another precaution of some importance to be mentioned, viz., that the captain or officer who employs sailors from an infected port should have them pass a medical inspection before they are allowed to come on board.

Seeing that communication between an infected country or town and a non-infected country or town cannot be effectually cut off, however desirable it may be to do so, I should simply institute sanitary measures that would be as effective as possible without increasing panic and not so troublesome as to make people try to evade them.

I have passed through two severe epidemics of cholera in Egypt, which have clearly demonstrated the merits and demerits of the *cordon sanitaire.* During the cholera epidemic of 1865 no sanitary measures of this nature were adopted, but, notwithstanding this freedom from the *cordon sanitaire,* the panic amongst the foreign population in the country was even greater than the panic of last summer's epidemic, when the *cordons saintaires* were fully put to the test. I state this merely to show that the simple presence of cholera in a community is quite sufficient of itself to cause a panic, as we have seen this summer at the French infected towns, and we must be prepared to minimize the risk incurred by a panic-stricken people from an infected district scattering themselves over the country.

The only apparent good that could be attributed to the application of the *cordon sanitaire* in Egypt was that it decidedly retarded the progress of the malady and thus gave more time for the non-infected towns to prepare for the enemy that was sure to be brought to them through those who would manage to pass the *cordon* by stealth or otherwise. But I fear the ultimate result was far from favorable; for if the government had allowed the late sanitary board to finish their report on the cholera, we should have found the mortality of the last epidemic about the same as that of 1865.

It is not, therefore, in my opinion, justifiable to apply *cordons sanitaires*, if all the good they do is only to check the progress of the disease for a few days without lessening the ultimate mortality. I do not hesitate to state my belief that if an absolutely perfect *cordon sanitaire* were placed round an infected town or district, the cholera would not spread from there, but would die out in due time unless it were endemic in the place. It is the imperfection of the *cordon* that is scientifically its weakest point, and, as it is quite impossible to make it perfect, it had better not be tried any more.

Now, although the dictates of science are, as a rule, sound, they may be altogether impracticable, while a modification of them might be carried into effect with success.

I do not believe that civilized people would submit to be confined to an infected city by a *cordon sanitaire.* They would rise in rebellion and break through the *cordon* at the risk of being shot. We are compelled, therefore, to propose more manageable and less annoying measures of sanitation. If people choose to leave an infected place to go to a non-infected one, I do not understand why it should be either difficult or very annoying for them to inform the sanitary authorities of their intention, that they and their baggage may be disinfected on leaving.

All this requires considerable organizing, and studying out in detail. Here I have only broached the subject, in order that Hygiene may think the matter over more profoundly and come to some universally practical results.

With respect to the prophylactic measures to be recommended (besides sanitary precautions), I would here mention that the members of several large households in Cairo took from five to ten drops of dilute hydrochloric acid three times a day before and after the cholera broke out in that town, and only one of their number was seized by the malady, but, as he was a Greek servant, it was suspected that he did not take the acid. I think it is a great matter at such times, when a contagious disease is at the door, that all food should be well cooked and the drinking water boiled.

In the medicinal treatment of the disease I consider that I have had great success, and I shall here recount to you in a few words my experience.

During the cholera of 1865 in Egypt, the most remarkable cases of recovery from the disease that came under my notice had been treated by giving small doses of the protochloride of mercury (calomel) frequently repeated, according to urgency of symptoms; and, notwithstanding the large quantities of calomel thus taken by the choleraic patients, I never saw any of them manifesting the least sign of salivation. I was then so satisfied with the good effects of this drug that I determined to prosecute this treatment more extensively should I ever have the misfortune to be brought face to face with this malady again. But, although I have had an extensive native as well as European practice out there for nearly twenty years, I had not confronted the same disease till the epidemic of last summer, when I had no difficulty, at Damietta, in recognizing the disease raging there as being epidemic cholera.

By this time, however, my ideas about the calomel treatment of cholera had become modified, and in this way: About five years ago I was led to try perchloride of mercury (corrosive sublimate), in very small doses, for the mucous diarrhœa of teething children that were being reared on the bottle, and I was so successful that I ventured to extend its use to chronic and refractory diarrhœas of adults, with equally good results as compared with the former treatment by calomel or grey powder.

This led me to think that perhaps, after all, the good results formerly obtained in such cases by administering calomel arose from a portion, at least, of the protochloride being turned into the bichloride of mercury in the stomach by the action of the free hydrochloric acid in the gastric juice, and that probably the action of the drug was entirely a local one, destroying the micrococci that were irritating the intestines and keeping up the diarrhœa.

With these ideas running in my mind when the cholera broke out suddenly at Damietta last summer, I determined to employ the bichloride of mercury in the treatment of cholera, but in what may be styled an heroic manner, knowing full well the kind of disease I had to deal with, and being convinced, from former experience, that in true cholera there is little or no absorption of medicines given by mouth.

During the epidemic, then, I adopted the following plan: If the patient suffered from the symptoms of a simple diarrhœa, I gave the tincture of opium in large (but divided) doses, and in many such cases this sufficed for the cure of the patient; but if vomiting or cramps set in, I immediately suspended the opium treatment and gave the bichloride of mercury in doses of one-sixteenth to one-eighth of a grain every quarter of an hour, every half hour or every hour, according to the state of the patient. Of course, when I was called to see a patient manifesting all the symptoms of cholera, even in the collapse stage of the disease, I gave the bichloride at once, and I had many recoveries to record.

I do not mention here the adjuncts that I employed, such as rubbing the patient with mustard and vinegar, and trying in all the usual ways to keep up the animal heat, because I want to lay special stress on the medicinal treatment; and in the bichloride of mercury we have a powerful anti-choleraic.

Out of sixty-eight railway employés who were suffering from true cholera, and who were treated by corrosive sublimate, only fifteen of them died, being a death rate of a little more than 22 per cent. In India, on the other hand, we find, from the published statistics, that in the military and civil services there is a death rate of 72 and 66 per cent. respectively of the cholera cases treated.

Gentlemen, there is no time for going further into this subject here, but before closing my paper I wish to relate to you a most interesting, as well as instructive, case of what may be called a partial quarantine or isolation that had a very happy issue; and the facts I am now about to tell you are attested by the signature of one of our most esteemed physicians in Cairo — Dr. Vernoni.

On the outskirts of Cairo there is a port town on the Nile named Boulaq. It is densely inhabited by the working classes, and every here and there throughout the town there are conglomerations of low, filthy Arab huts. Immediately to the south of one of these Arab hamlets, and on low ground there is a large French flour mill surrounded by a wall twelve feet in height, with only one large gate of entrance and exit opening to the west. Inside this wall, besides the mill, there is a large open area, and the mill, with its enclosure, forms the base of a triangle, the apex of which points due west. The northwest side is a high ground covered with Arab huts that look down into the mill area. The southwest is occupied by H. H. the Khedive's stables, and the road from and to the mill leads due south into the public road to Cairo.

The reason I am so particular in mentioning the exact position of this mill, as to its surroundings will be obvious as I proceed.

Here there were constantly employed twelve Europeans and eighty-five Arabs. The Europeans had their houses in Cairo, while the Arabs had their families in Boulaq, and dwelt principally in the huts near the mill.

Now, before the cholera broke out at Boulaq, the manager of this mill informed the Arab employés that if they continued to do their work at the mill and remained within the enclosure wall, and had no communication with their families till the epidemic had passed, they would not only receive their wages, but would also be fed at their master's expense.

Eighty-two out of the eighty-five Arab employés submitted to these conditions, but the three that would not be thus separated from their families had, for the time being, to be discharged. The European employés, however, were put under no restriction, so that they had free access to the mill and to their families in Cairo all through the cholera epidemic. The mill is supplied with filtered water from the pipes connected with the Cairo waterworks, while the Arabs staying in Boulaq have their water supply directly from the Nile, and they drink it unfiltered.

It is well known how badly the cholera raged all over Boulaq, the Khedive's stables not even escaping its ravages; but it more particularly attacked the Arab huts near the mill, and these had all to be burned down, so that many of the families, before the government could remove them to another settlement, huddled together down at the foot of the mill enclosure wall, and a great number of them died there of cholera. But, notwithstanding the close proximity of the disease and the fact that the north wind was steadily blowing from the infected Arab huts right on to the mill, yet during the three weeks of this partial quarantine there was not a single suspected case of cholera at the mill. On making enquiries, however, after the epidemic had ceased, concerning the three Arabs that had to be dismissed, it was ascertained that all the three had been attacked by the cholera, and two of them had died of it.

Now, I judge from this that if the other eighty-two Arabs had had free communication with their infected families, without undergoing any disinfecting process, they would not only have had a large proportion of deaths from cholera amongst themselves, but they would, in all probability, have also carried the contagion to the European employés of the mill.

It must be manifest to every one that this affords a striking example of the fact that the contagion of cholera, whatever its nature may be, is not carried in an active, living state by the wind; but, on the contrary, if it be capable of being suspended in the air, it becomes inert, and more especially in dry hot air. Then, as regards the weather, I may say that of all the summers I have spent in Egypt that of 1883 has been one of the mildest.

The natural inference from the above is that the contagion of cholera is carried by something more substantial than the wind, and that, even in the midst of an infected district, it is possible to stave off the disease by adopting sanitary measures, and, where practical, by imposing a modified isolation.*

But it is also evident that, if cholera ever be of spontaneous origin, the French flour mill at Boulaq, surrounded as it is by low-lying damp soil, occupies a position which all authorities

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*The following is another example of successful modified isolation in the presence of cholera: About 106 miles to the south of Cairo, and situated on the Nile, there is a town named Magagah having a population of about 4,000. Here there is a large government sugar-factory, of which Mr. Black, an Englishman, is the chief engineer, and he, with his family, occupies a large house in the center of a garden, which is surrounded by a wall that abuts on the north side of the town During the summer months the factory stands idle, as the crushing of the sugar-cane does not begin till Christmas, and when it does begin it lasts only about two months, so there was no difficulty for those engaged in the cane-crushing to put themselves under a fairly strict quarantine when the cholera appeared in their neighborhood. Mr. Black's household, including servants, numbered eight souls. There was another English family named Mason that lived about one and a quarter miles south of Magagah. Mr. Mason was the chief engineer for the sugar-cane crushing press of Carver & Co., and he had under him thirty-one men, women and children, all dwelling in huts near his house. Now, it so happened that the soldiers of the infected *cordons sanitaires*, when withdrawn from the Delta, were sent to Upper Egypt, and twelve of them came to Magagah and were billeted around the governor's house. On the same train by which they came a fellow passenger died of cholera and was buried at Wasta. This was on the 28th of July, and on the 29th a man died in Magagah very suddenly immediately after his supper. This was afterwards considered to be a *cas foudroyant* of cholera, for next day the governor lost two of his household from this disease. On hearing this, Mr. Mason put all his people under a strict quarantine, so that they had no communication with their neighbors during the time the cholera lasted at Magagah. One of the servants fetched water regularly every day from the Ibrahimieh canal, which was quite near, but he never came in contact with any of the neighbors. The wind was blowing steadily from the north and the disease was spreading rapidly from north to south, yet it missed over this little colony entirely. Some may endeavor to account for this by supposing that none of their number were predisposed to take the malady; but the fact that one of them, on afterwards visiting an infected town, took the cholera and died of it is a proof that it was not for want of predisposition that the small colony was preserved from cholera as long as they remained isolated from their infected surroundings, but simply because the germ of the disease had not been brought to them. Three or four days after Magagah was declared free of cholera Mr. Mason sent his servant to a neighboring village called Sheykh Zayat, which continued to be non-infected, although a man died of cholera on its outskirts while on his way from an infected town. Here the servant bought some mutton, as they were all longing for a change of diet, having had only chickens and pigeons to live on for twenty days. After another three days the servant was sent again to the same village for more meat, but, finding when he went there that the butcher had not killed any meat that day, he went on five miles beyond to Tambady, where the cholera was then raging. Here he staid about an hour and had something to eat and drink. This happened on the 21st of August, and on the 23d he began to complain of having diarrhœa, when Mr. Mason gave him some chlorodyne and sent him to lie down in his hut, which was about twenty yards from the house. Choleraic symptoms speedily set in, and, notwithstanding every care and attention, he died on the morning of the 25th. His hut and its contents were burned, so that the disease did not spread any further. I have no doubt that if this servant had not gone to the infected village he would not have taken the disease, and I am of opinion that the prompt measures that were taken to isolate him in his own hut, and after his death to burn it to the ground, saved the other members of the colony from becoming infected.

Let us now revert to Mr. Black and his family. The day after the deaths at the governor's house there were two or three deaths in the town. This so alarmed Mr. Black that he shut his garden gates and thus isolated his household from the outside world while the cholera was decimating the town that was within a stone's throw of them. But as Mrs. Black is looked upon by the natives up there as a *hakeema* (doctoress), the friends of the choleraic cases would collect at the garden gate asking for medicine, and the watchman from inside the gate would go to Mrs. Black and get for them whatever remedies she thought best to give. Poor fellow! he little thought that by doing these acts of mercy he was exposing himself to any risk, yet in a very few days he was attacked by the disease and died, but no other member of the household was affected by it. The drinking water was brought regularly from the Nile by a *saqqa* (water carrier), who was well douched with a strong solution of carbolic acid each time he came, so that every precaution was taken to prevent the malady from getting into the house, and the effort was successful so far that the only one attacked was the watchman at the gate, who must have been, under the circumstances, daily exposed to the contagion.

At the commencement of the outbreak of the epidemic the Greek families in Magagah, numbering seventeen persons, left the town and encamped in tents to the north of Mr. Black's house. One of their number, on the day of their removal from town, died of cholera in their camp. Notwithstanding this, there were no other cases in their encampment all through the epidemic. The Greek baker, however, the only Greek who did not leave the town with the others, was attacked by the malady and died.

Many other instances could be given showing the efficacy of practicable isolation combined with sanitary measures, but the above ought to suffice.

would agree is the most favorable for the spontaneous production of the disease, yet it remained exempt while the malady was raging all round it.

Another point, I think, must be admitted, viz., that the towns and villages of Egypt, as long as they are inhabited by an ignorant and dirty race of people, are not merely *periodically* suitable for the reception and propagation of the cholera germ, but are *always* a fit nidus for this or any other disease germ, and the reason why we have not the cholera always there must be that the germs of one epidemic, for some reason or other,[†] die out and there can be no recurrence of the disease till a fresh set of germs have been imported, as cholera is not one of the endemic diseases of Egypt.

Again, we know that cholera does not come down upon a country like a general hailstorm, attacking villages, towns and districts all at the same moment, but it steals in by some port or frontier town, and gradually spreads from town to town in direct relation with the communication between them. This is surely sufficient proof that meteorological influences do not play any very important part in the matter.

I have not the slightest doubt myself but the malady is caused by a living organism whose destruction we shall yet effect, when our great scientists can tell us something more definite about its habits, mode of life and *local* in the system and out of the system.

In the meantime, however, with our present imperfect knowledge of the disease, I think I have indicated sanitary and medicinal measures that are not only reasonable, but practicable, and that will be more effective in staving off and stamping out the cholera than the present quarantine regulations, that are all the more intolerable because they can never be perfectly carried out, and that have thus become ludicrous in their application.

ABSTRACTA.

VALENZUELA ON INHALATIONS OF NITROGEN.—In pulmonary tuberculosis, in chronic bronchial and alveolar catarrh, and in essential and symptomatic asthma, the results have been most conclusive. The inhalations must be given four or more times in the twenty-four hours, and the nitrogen should be mixed with a certain quantity of air. In tuberculosis, the progress of the disease is arrested, and the existing lesions repaired, if one may judge by the disappearance of the symptoms and physical signs. The following case is an example: A servant girl, aged twenty-three, was admitted, with cough, dyspnœa, want of appetite, wasting and sweats. There was dullness in the left subclavicular region and supraspinous fossa. Vesicular murmurs were absent; there were moist and subcrepitant râles and cavernous breathing. On the right side was harsh, rough, exaggerated breathing. The sputa contained elastic fibres. She had night-sweats. The patient began treatment on July 10th, and on September 3d was discharged, with percussion sounds and vesicular murmur everywhere normal, the râles and cavity sounds having quite disappeared. Three months afterwards she was found to be in perfect health.—*El Siglo Medico; Medical Analectic.*

[†] Probably from the dryness of the climate, which, I understand, is also the reason given for the non-endemicity of cholera in the Panjaul.

Mercuric Bichloride in Tuberculosis.—S. T. M., aged 38, came, October 23, 1885, in a feeble and emaciated condition, suffering from dispnœa, hoarseness, frequent chills followed by high fever, and colliquative sweats. Examination showed infiltration of the epiglottis and the walls of the larynx. The vocal cords were concealed behind the swollen tissues above. The cough seldom ceased more than five minutes at a time during the entire day. The sputum was rich in tubercle bacilli. This man used a spray prepared as follows:

Hydr. bichloridi	gr. ij
Aquæ destillatæ	Oj
Sodii chloridi	ʒj

M. Ft. solutio.

He was ordered pills of the bichloride (gr. 1-40 each), one before each meal and at night, and a pill of asafœtida (gr. iij) and ext. nux vomica (gr. $\frac{1}{4}$), to be taken at the same time. In six weeks he was walking five or six miles daily, hunting game. He was married last January, and is now out West.—*Progress.*

Efficient Sedative Cough Mixture.—

℞ Potassi citratis	ʒj
Succi limonis	ʒij
Syr. ipecac	℥ss
Syr. simplicis, q. s.	ad ℥vi

M. Sig.—A tablespoonful from four to six times a day.

When there is much cough, or irritability of the bowels, paregoric may be added.—*H. C. Wood, Ther. Gaz.*

Breast Milk for Consumption.—Dr. Caius, some four hundred years ago, when an old man, tried to regain his youth by suckling the breast of a woman. He died of stone—not of old age, at least. A more successful application of this remedy is reported to us by a correspondent, who says that a party who had every indication of the last stages of consumption has regained former health, and attributes it to obtaining his nourishment from sucking a healthy nursing woman."—*Medical Record.*

Hiccough.—Give a pinch of snuff and produce a sneeze.

Hysteria.—Pressure with the thumbs on the supra-orbital nerves, at the supra-orbital foramina, during a hysterical fit, causes the patient to contract the facial muscles as if in pain, and then to cry out and take several inspirations followed by a long expiration. The muscles then relax and the fit is ended. Pressure maintained after this result may excite another attack. —*Rualt, in France Med.*

Anteversion Extraordinary.—Dr. Aveling (*London Lancet*, Aug., 1885) relates the following: The patient, a lady thirty-eight years of age, was struck in the left eye by the head of one of her children, in October, 1884. Six weeks later she experienced noises in the ears, tenderness of the nose, and pain at the back of the head when she stooped or had the bowels moved. Speech was also affected—she hesitated and stammered when she spoke. The symptoms grew worse until March, 1885. March 22, she complained of having a constant feeling of weight in the pelvis, and could only pass a small quantity of water at a time, and with great effort. Examination revealed extreme anteversion of the uterus, with a full bladder. The uterus was replaced, and later a cradle pessary adjusted, *when all the head symptoms disappeared.—American Lancet.*

Artificial Suspension of Menses.—It has been thought that when the menses are suppressed, without appreciable physiological cause, that a reappearance of the flux was indispensable to health. Loewenthal opposes this view. In women in health the menses are a salutary purgation for the sake of systemic equilibrium. But in women not in health, especially in cases of chlorosis, where there is a decrease from the normal quantity of the blood, the menses are pernicious; if nature does not suppress the flux, the physician should do so. Loewenthal accomplishes this by injections of hot water, 122° F., and rest in bed for a time; water under 115° defeats this object and favors the flow. He has treated eighteen chloro-anemic patients, two hysterical, and three convalescent from severe maladies. The chloro-anæmic cases were rapidly cured without other treatment; amelioration generally followed the first artificial suppression; in one case a cure was effected only after eight suppressions. One only of the hysterical cases was ameliorated. No report is given of the convalescents. No bad results in any case follow the complete artificial suppression. The chief difficulty was to keep the patients quiet in bed long enough to effect the result.

M. Kugleman is said to have obtained suppressions by Hydrastis Canadensis, and to have observed frequent suppressions follow journeys by rail. Maratime voyages have, according to Irving, a very clear emmenagogue action.—*N. Y. Med. Abstract*, June, 1886.

Woolen Garments.—Jager claims that their exclusive use gives immunity from colds.

Tupelo in Dilatation of the Uterine Cervix.—Ménière regards the tupelo root as preferable to sponge or laminaria, for the following reasons:

1. Tupelo acquires its maximum degree of expansion in less than an hour and a half, while sponge and laminaria require from six to seven hours.

2. Its surface remains soft, pliable and spongy, and in extracting it there is no danger of injury to the mucous membrane.

3. It returns with facility to its former size and shape, and may be used several times if subjected to disinfection in mercuric chloride after each operation.—*Gaz. de Gynècolgie; Medical News.*

Staffordshire Knot.—Mr. Tait makes the tie to constrict a pedicle in two equal parts, as follows: He employs an awl-like needle, with an eye near the point, and threaded with the ligature, to transfix the pedicle at its middle. As soon as the eye appears on the distal side, the ligature is seized and pulled upon while the needle is withdrawn, and entirely cleared. Now there is a loop on one side of the transfixed pedicle and two free ends on the other. The next step is to pull upon the loop until it is long enough to pass over the tumor or collapsed ovarian cyst; then one of the free ends is passed through the loop, and the two ends pulled upon till the loop is shortened and made to encircle the halves of the pedicle at the line of transfixion.

Five Feet of Intestine.—Prof. Theodor Kocher, Berne (*Correspondenz Blatt*, March 1, 1886) resected five feet of intestine under antiseptic precautions. The patient was well in eighteen days. Several months later he reported that he had never had better health.—*N. Y. Med. Times.*

Extirpation of the Spleen.—*Lancet* (June 5, 1886) reports from *La Gazetta degli Ospilati* (May 23) a case from the surgical clinic of the University of Genoa in which Professor A. Ceci removed an enlarged spleen from a girl aged seventeen years. Thirty-one days after the operation the patient was in excellent condition, and a more recent note from Professor Ceci states that the patient is in good health; pulse 80, respiration 22, weight increasing rapidly, complexion florid. The extirpated spleen, with the contained blood, weighed 77.16 ounces.

The Ice-Bag.—In the German hospitals every bed has its framework for the proper attachment of the ice-cap, which hangs just touching the patients head, so that he can move without upsetting the cap. In almost every disease where the temperature rises above the normal, the ice-cap, if of proper material and properly applied, is indicated. A nail in the wall or a hook in the ceiling will aid in adjustment.—*Dr. Thornton Parker, in Va. Med. Monthly.*

ANÆSTHESIA.—Brown-Sequard has found that when the mucous membrane of the larynx is severely irritated there follows an anæsthesia of the rest of the body, coming on gradually and progressively, and reaching its height in from fifteen to twenty hours. This anæsthesia is a loss of the sensations of pain and touch alone; sleep is not produced, and there is no loss of consciousness, of the muscular sense or of that peculiar sensation which arises from the motion of the joints. This analgesia can be prolonged eight, ten or even more days, by keeping up the irritation in the larynx. In his experiments upon dogs, Brown-Sequard made large wounds upon the animals and prolonged the irritation of the larynx until the wounds were completely cicatrized, the animals showing no evidences of suffering during the whole performance, although large nerve trunks were often cut through.

The substances used for setting up irritatation of the larynx were carbolic acid and chloroform vapor. It was found necessary to prevent these substances from getting into the lungs or blood, otherwise the anæsthesia did not appear.

This phenomenon is explained by Brown-Sequard as occurring through an inhibitory influence of the superior laryngeal nerve upon the central nervous system.—*Northwestern Lancet.*

BENZOATE OF SODIUM.—M. Haberkorm gives 300 grains daily in *erysipelas.* Temperature in most cases becomes about normal within forty-eight hours, and general improvement is rapid.

Nothnagel is quoted as saying that when salicylate of sodium fails in *acute articular rheumatism*, benzoate of sodium will often succeed.—*Northwestern Lancet.*

FAITH HEALING.—Rev. Dr. Buckley, editor of the Methodist *Christian Advocate* has a long article in the June *Century* opposed to the claims of Christian " faith healers." " Its tendency is to produce an effeminate type of character which shrinks from any pain, and to concentrate itself upon self and its sensations. It sets up false grounds for determining whether a person is or is not in the favor of God. It opens the door to every superstition." " It directs attention from the moral and spiritual transformation which Christianity professes to work, a transformation which, whenever made, manifests its divinity, so that none who behold it need any other proof that it is of God. It destroys the ascendency of reason in the soul, and thus, like similar delusions, it is self-perpetuating; and its natural, and in some minds its irreststible, tendency is to mental derangement."

BRONZING OF THE SKIN followed the use of Fowler's solution for chorea.—*Dr. W. B. Cheadle, in N. Y. Med. Abstract*, April, 1886.

ARSENIC is prophylactic of scarlatina.—*Dr. W. G. Watford, in Brit. Med. Jour.*

GRATUITOUS SERVICE TO MINISTERS.—In the Cincinnati *Lancet-Clinic* of May 8th we find an editorial in which a delicate subject is considered in plain language—namely, the rendering of gratuitous services to ministers by physicians.

The editor refers to the time when ministers were paid such meager salaries that they were scarcely able to keep themselves in clothes, and their provisions were often brought them by the members of their congregations. It was at such a time that the physicians rendered them gratuitous services, well knowing that they could not get pay even if they charged it, as the ministers were too poor. Now, since ministers receive on the average as good salaries, and in the larger cities even better salaries than, the average physician, there is no reason why physicians should extend gratuitous services to them.

The editor continues: "We consider that nothing more demoralizes a man and renders him contemptible than to have his various wants administered to without charge. It despoils him of his manhood, and renders him mean, selfish and ungrateful. He accepts favors bestowed as though he was entitled to them, without even giving, oftentimes, a 'thank you' in return. He whines and complains when there is not lavished upon him what other people expect to pay for when they receive it. Now, as ministers in older portions of the country are as well paid on the average as those engaged in other callings, they should renounce the old custom of accepting gratuitous medical services, free entertainment when they go abroad, passes on railroads, free tickets to concerts and lectures, and a hundred other things without charge that other people pay for. When a man pays for all that he gets, it gives him a feeling of independence and an air of manliness that begets respect and increases his usefulness. Besides, the Good Book positively asserts that he that does not work shall not eat; or, in other words, that he is not to have any thing for nothing. Consequently a preacher, according to the authority which he urges upon his fellow-man to accept as containing the highest wisdom, has no right to accpt the services of a physician gratuitously if he is able to pay for them."

The editor of the *Lancet-Clinic*, however, overlooks one phase of this subject. The minister is often called to the sick-bed, and wields an influence over the members of the family, especially the feminine portion, which it will not do to ignore. By treating the minister gratuitously, the physician, to a certain extent, subsidizes him as a perambulating advertisement of himself, and the custom, therefore, is simply a modification of the "free clinic" advertising dodge.

Another thing is, that if there is any one thing which the average minister would prefer to do in preference to writing recommendations for quack remedies, it is to dabble in medicine and practice quackery himself. Gratuitous treatment may possibly keep him out of the field as as a dangerous competitor.

We think that this question will be settled only by each physician and pharmacist determining for himself what pays him best—to charge ministers or not to charge. If the custom is changed at all, it will only be by ministers asserting their own manhood more than they are in the habit of doing.—*National Druggist.*

Diposal of the Dead.—Dr. A. F. Eklund, of Stockholm, Sweden (*Therapeutic Gazette*), does not favor cremation; it follows a pagan custom, and will never become popular in civilized countries. His own preference is embalming and burial in the earth. The prevention of the results of putrefaction, which latter produces organisms that are not only revolting to the mind but dangerous to human life, can readily be effected by a very simple process of embalming, and this should be done as soon as possible after death. For this purpose several materials are suggested—sodium chloride solution with boracic acid; some of the now popular mercuric salts, chloride or iodide, mineral acids, etc. Coffins should have impermeable bottoms, and these be lined with absorbent material. He also suggests that there should be educated or trained embalmers of both sexes and a special police service under an inspector, so that immediately after the decease of any person proper sanitary measures may invariably be secured.

To Protect Surgical Instruments from Rust.—It is stated in the *Dental Eclectic* that a physician was called upon to perform an operation on a farmer who was injured while ploughing in his field, and during the excitement of the occasion mislaid his case of instruments. Some months later they were found in the field. The case had become disjointed and all the instruments were rusty except an amputating knife, the handle of which was secured to the blade with zinc. The appearance of this knife suggested the possibility that galvanic action had prevented it from rusting.—*Technics.*

Dr. W. H. Mussey, of Cincinnati, used to advise his students to have strips of sheets of zinc in their instrument cases in contact with steel instruments to protect the latter from rust.—*Canadian Practitioner.*

Corks become impervious by soaking for several hours in a solution of half an ounce of glue or gelatin, six drachms of glycerine and one pint of water at 122° F., and then are rendered nearly proof against acids if they are dipped, after thorough drying, for ten or fifteen minutes in a melted mixture of four parts of paraffin and one part of vaselin.—*Druggist Circular.*

Corks, Ether-tight.—Gelatin, 4 parts; boiling water, 52 parts. Dissolve, filter, and add ammonium bichromate, 1 part. Coat the corks with the solution and expose them for several days to sunlight.—*C. Neuman, in National Druggist.*

Recent Methods of Treatment of the Asphyxia of New-Born Children.—Dr. William L. Reed, in the *Glasgow Medical Journal*, gave the following different methods of restoration:

1. Marshall Hall—The patient is placed face downwards so as to press on the chest and cause expiration, then turned on the side so as to free the chest from pressure, and produce inspiration by means of the elasticity of its walls.

2. Howard—The arms are extended, the wrists being brought together over the head and the chest thus expanded. The lower ribs are then alternately pressed on and relieved from pressure so as to cause expiration and inspiration.

3. Sylvester—The arms are raised upwards and forwards for a few seconds, and then pressed firmly down against the sides of the chest. By means of the muscular attachments the ribs are raised and air is sucked in, which is expelled when the arms are brought down again.

4. Pacini—The feet are fixed, and the operater standing with the head against his own abdomen, seizes the arms at the axillæ and pulls the shoulders upwards and forwards, then allowing them to return to their former position.

5. Bain—The shoulders are raised by lifting the body a foot off the table by seizing its hands. They are then allowed to fall back again, thus causing alternate expansion and contraction of the thoracic cavity.

6. Schucking—Like Sylvester's, except that he carries the arms outwards as well as upwards.

7. Schuller—The operator puts his fingers under the edges of the ribs and pulls them up, afterwards depressing them.

8. Schroeder—The body is supported by one hand placed under its back, allowing the head, shoulders, arms and pelvis to fall backwards, with the view of producing inspiration, expiration being caused by sharply bending the body forwards so as to compress the chest and abdomen.

Lastly, Schultze's method—The child is to be suspended a few inches from the floor by the two index fingers placed in the axillæ from behind, the thumb lying loosely over the front of the thorax, and the other fingers spread also loosely over the thorax behind, the head being supported against the edges of the ulnar bones. Without delay in this position, the child is swung sharply upwards, until the operator's arms are extended horizontally, then the upward movement is continued more gently so as to bring the legs slowly past the perpendicular and allow them to sink quietly against the front of the child's body. The weight of the latter is now supported by the thumbs in front of the thorax, and the chest pressed on all around by the fingers, and its arms laid against its sides. This compression through the diaphragm below, and by the fingers all around, causes aspirated fluids to flow freely from the mouth and nose. After being retained in this position a few seconds, the body is swung smartly down again into its former position, taking care that now there is no compression of the chest, either before or behind, but simply a suspension of the child on the index fingers. During this movement the contents of the abdomen, partly by gravity and partly by centrifugal force, fly away from the diaphragm, and, dragging it down, enlarge the chest from below. At the same time the arms are separated from the sides, and by their muscular attachments drag the ribs upwards, and in this way air is sharply drawn into the lungs. These movements are continued every four or five seconds, unless when a considerable quantity of fluid continues to come from the mouth and nose, when the movement of expiration is on that account prolonged. —*Canada Lancet.*

ASPHYXIA NEONATORUM.—In two cases, after unsuccessful attempts at resuscitation, Dr. Noble, with the theory that asphyxia was due to cerebral anæmia, inverted the children. Breathing began, and afterwards in both cases the horizontal position was twice resumed, and respiration at once ceased. The child was held head downwards for nearly an hour in the first case, and for three-quarters of an hour in the second, before respiration was established.—*Am. Jour. Obs.*

REPORT OF ALBUMEN TEST COMMITTEE.—The Albumen Test Committee, in its report to the Clinical Society of London (*Lancet*, June 5, 1886), compared Dr. Oliver's test-papers, Dr. Johnson's picric acid method, the potassio-mercuric iodide and acid, Dr. Pavy's pellets, the acid brine method, picric acid and brine, the acetic acid, and the nitric acid methods. The portability and delicacy of reaction of Dr. Oliver's papers were in their favor, but apart from the question of easy carriage and compactness, the committee decided that nitric acid was most reliable and delicate. All the other methods were considered useful in determining various proteids that might be in urine.

OLEOMARGARINE AND PRESIDENT CLEVELAND.—"What do you think about Cleveland's signing the oleomargarine bill?" I asked. "Mr. Cleveland when governor signed substantially the same bill when passed by the New York legislature, and the court of appeals set the law aside as a violation of the state constitution. This is a precedent."—*Eli Perkins, Albany Evening Journal*, August 7.

GALEZOWSKI, the celebrated French oculist, has discovered that pelletierine produces diplopia. He therefore recommends this remedy for oculo-motor paralysis. Considering that Galezowski is an allopath, this is very shrewd practice.—*Hahnemannian Monthly.*

CANNED GOODS were not injured by freezing and thawing in successive years in the Arctic region.—*Lieut. A. W. Greely, U. S. A., in American Grocer*, New York, July 28.

ALBANY MEDICAL ANNALS:

A Journal of the Medical Society of the County of Albany.

EDITORIAL COMMITTEE:

F. C. CURTIS, M.D., A. VANDER VEER, M.D., LORENZO HALE, M.D.,
JNO. BEN. STONEHOUSE, M.D., WILLIS G. TUCKER, M.D.

Vol. VII. AUGUST, 1886. No. 8.

BOOK NOTICES.

THE GENUINE WORKS OF HIPPOCRATES. Translated from the Greek, with a Preliminary Discourse and Annotations. By Francis Adams, LL.D., Surgeon. Volume II. Being Volume VII. of Wood's Library for 1885. New York: William Wood & Company.

The commendation of Volume I., in our May number, applies as well to this second volume. Contents: "The Surgery," "Fractures," "The Articulations," "Mochlicus" (setting joints by leverage), "Aphorisms," "The Oath," "The Law," "Ulcers," "Fistulæ," "Hemorrhoids," "The Sacred Disease" (epilepsy), and five full-page plates, Nos. 4 to 9, inclusive. The translation is in fluent language, and the book is something more than mere pastime for a leisure hour.

WARING'S PRACTICAL THERAPEUTICS. Containing an Index of Diseases, with a list of Medicines applicable as Remedies, and also a full Index of the Medicines and Preparations noticed in the work. By Edward John Waring, M.D., F.R.C.P., F.L.S., etc., etc. Fourth Edition. Rewritten and Revised. Edited by Dudley W. Buxton, M.D., Assistant to the Professor of Medicine at University College Hospital; Member of the Royal College of Physicians of London. 666 pages. Cloth, $3.00; leather, $3.50.

If no advance were ever made in therapeutic knowledge, then our old "Waring" would "do." But this edition has been thoroughly revised and, in a great part, rewritten. Much care has been exercised to retain the practical character of the manual which has brought success to the former editions. In order to notice new remedies, and the extended and novel uses of the old, it has been found necessary, in this 1886 edition, to omit Part II., so far as classes of medicine are concerned, and other portions of the same part which it seemed desirable to retain have been tranferred to the body of the work. The "manual" size and form, which is the same as "Galabin's Midwifery," which we have before recommended, is convenient, and deserves to be popular.

Diseases of Digestion, Urinary, and Generative Organs. Illustrated by one hundred and six fine wood engravings. Being Volume II. of the Handbook of Practical Medicine. By Dr. Hermann Eichhorst, Professor of Special Pathology and Therapeutics and Director of the University Medical Clinic in Zurich. This is Volume VI. of Wood's Library for 1886. New York: William Wood & Company.

The beauty of the book, second only to the attractiveness of the copious illustrations, is the conciseness of the author's style. With brevity, there is combined clearness of statement and comprehensiveness of detail. The fruit of the latest investigation by the best observers is given. The volume includes diseases of the buccal cavity, etc., of the œsophagus, stomach, intestines, liver, pancreas, peritoneum, and of the urinary and male sexual apparatus.

EXCHANGES, PAMPHLETS, ETC.

The Annals of Hygiene is the attractive name of one of our young exchanges which drew its first breath in January, and appears as the organ of the youthful State Board of Health of Pennsylvania. We are glad that the title "Annals," which we previously had selected, meets with such favor. Dr. J. F. Edwards, an editor of the well-known *Medical and Surgical Reporter*, and also a member of the state board of health, is the editor of this journal, which speaks well for it. The subject is, moreover, one which all of us are becoming more and more interested in, and the journal promises to fill an important place in current literature. The July number is largely filled with papers read before the State Sanitary Convention held in Philadelphia. A somewhat similar enterprise of issuing a periodical devoted to sanitary matters is carried on by the Minnesota Board of Health and also that of Tennessee, and in quarterly reports by the Illinois Board, and it would seem as if it might indeed be a valuable method of disseminating information and awakening an interest in sanitary affairs. F. C. C.

Annals of Surgery, Vol. IV., No. 2, August, 1886. Balliere, Tindall & Cox, London; J. H. Chambers & Co., St. Louis. 104 octavo pages, monthly. The current number contains three "Original Memoirs," viz.: "On Radical Cure of Oblique Inguinal Hernia," W. Macewen, M.D.; "The Operation for Variocele," A. Ogston, M.D.; "Colles' Fracture," R. J. Hall, M.D.; editorials on "Pharyngotomy," by L. S. Pilcher, M.D.; "Operations for Tuberculous Joint Disease," by J. E. Pilcher, M.D.; "Bacterial Science" (continued)—"Gonorrhœa," by W. W. Van Arsdale, M.D.; "Electrolysis for Stricture of the Urethra," by S. F. Edwards, F.R.C.S.; and 33 pages of short abstracta of surgical progress.

Braithwaite's Retrospect of Practical Medicine and Surgery. Part XCIII., July, 1886. Uniform American edition. W. A. Townsend, publisher, New York city. $2.50 a year in advance; half-yearly parts, $1.50. This *Retrospect* includes 114 articles in the various subdivisions included under the heads of "Practical Medicine," "Surgery" (which includes Syphilis, Skin Diseases, and Eye and Ear Affections), "Midwifery and Diseases of Women,' etc., and 87 pages of short practical abstracts.

The Pacific Record of Medicine and Pharmacy. In Spanish and English. Will contain 24 quarto pages of English reading matter, 8 pages Spanish reading matter, and about 24 pages of advertisements. Charles W. Moore, M.D., editor. Publication office, 405 Sansome street, San Francisco.

The Archives of Gynecology, Obstetrics and Pediatrics. Published by Leonard & Co., 141 Broadway, New York. Bi-monthly, 96 pages, octavo, $3.00 a year. All subscribers for 1886 receive *The Medical Library* free.

The Medical Missionary Record. Large double-column octavo monthly, 24 pages, $1.00 a year. George D. Dowkontt, editor, 118 East 45th street, New York. "Copies will frequently be distributed at our medical and other colleges. The aid of friends is solicited toward free distribution." Vol. I., No. 1, May, 1886.

Congressional Record, Washington, Wednesday, April 21, 1886, containing a memorial setting forth reasons for the celebration of the 100th Anniversary of the Constitution of the United States in 1889, and of the 400th Anniversary of the Discovery of America by Columbus in 1892, and for a Permanent Exposition of the three Americas. Favor of Hon. A. P. Gorman, United States Senator, Washington, D. C.

Progress. Vol. I., No. 1, July, 1886. Edited by Dudley S. Reynolds, A.M., M.D., Louisville, Ky. 48 double-column octavo pages, $2.00 a year.

Chautauqua Assembly Herald. Daily during Chautauqua meetings in August. Five subscriptions at one time, 90 cents each.

"Water-Supply of Cities and Villages." The Anniversary Address before the Medical Society of the State of New York at the Eightieth Annual Meeting. Delivered at Albany, February 3, 1886, by A. Vander Veer, A.M , M.D., Albany, N. Y. Reprint from Transactions of the Society. 1886.

"Homœopathy as Viewed by a Member of the Massachusetts Medical Society " Delivered April 15, 1886, before the Hahnemann Society of the Boston University School of Medicine. By Vincent Y. Bowditch, A.B., M.D. (Harv.), President of the Boylston Medical Society of the Harvard Medical School, 1884–5. From *Boston Medical and Surgical Journal,* Cupples, Upham & Co., publishers.

"Social Ethics"—"The Social Evil"—"Synopsis of Mr. Kitchell's Paper." Compliments of Wm. M. McLawry, M.D., 244 W. 42d street. N. Y., President Board of Trustees of Society of Medical Jurisprudence and State Medicine.

"The Relations of the State and the Medical Profession." Address by Charles J. Lundy, A.M., M.D., President Medical Alumni Association, University of Michigan, Ann Arbor.

"Lactopeptine in Cholera Infantum."

"Homœopathic League Tracts," Nos. 1 to 5. Price, 1d.; per dozen, 8d.; per 100, 4s. 6d. Dr. John H. Clarke, 15 St. George's Terrace, Gloucester Road, London, S. W.

Reed & Carnrick, New York, have sent us valuable samples of "Liquid Peptonoids with Coca" (concentrated beef and milk with gluten, perfectly digested and combined with coca) an agreeable and wine-like restorative; and of "Carnrick's Soluble Food" (milk-wheat food), a pulverulent representative of the alimentary constituents, and their proportions, of an average sample of mother's milk.

NEWS AND MISCELLANY.

District Physicians of the City of Albany.

First District, Dr. Charles Devol, residence, 48 Franklin street.

Second District, Dr. Theodore P. Bailey, residence, 95 Eagle street.

Third District, Dr. F. D. Morrill, residence, 90 Madison avenue.

Fourth District, Dr. A. W. Kilbourne, residence, 792 Broadway.

Fifth District, Dr. W. F. Robinson, residence, 214 State street.

Sixth District, Dr. O. Ritzman, residence, 66 Willet street.

These physicians are appointed by the mayor absolutely, without confirmation by the common council; salary, $400 a year each.

The first district includes the first, second and fifth wards.

The second district includes the third and fourth wards.

The third district includes the second police precinct.

The fourth district includes the third police precinct.

The fifth district includes the fourth police precinct.

The sixth district includes the fifth police precinct.

The bounds of the first district, beginning at it southwestern corner, are Delaware avenue, Morton street, South Hawk street, Third avenue, Eagle street, Hamilton street, South Pearl street, Gansevoort street, Island Creek, and southern city line to Delaware avenue.

The bounds of the second district, beginning at its southwestern corner, are South Pearl street, Hamilton street, Quay street, and Gansevoort street, to South Pearl street.

The boundary of the third district "commences at the intersection of Hamilton street with the east line of the city; thence north to a point opposite the center of Quackenbush street and Clinton avenue; thence westerly along Quackenbush street and Clinton avenue to Lark street; thence southerly along Lark street to Spruce street; thence east along Spruce street to Eagle street; thence south along Eagle street to Hamilton street; thence east along Hamilton street to the place of beginning."

The fourth district "includes that portion of the city of Albany bounded on the south by Quackenbush street and Clinton avenue; on the west by Lexington avenue [formerly Snipe street], and on the North and east by the city boundaries."

The boundary of the fifth district "commences at the intersection of Spruce and Eagle streets; thence west along Spruce street to Lark street; thence along Lark street to Clinton avenue; thence westerly along Clinton avenue to Lexington avenue; thence along Lexington avenue to the south line of the city; thence along the south line of the city to Eagle street; thence along Eagle street to the place of beginning."

The sixth district includes all that part of the city west of Lexington avenue.

ARSENIC IN SKIN DISEASES.

The editor of the *Journal of Cutaneous and Venereal Diseases* is desirous of ascertaining to what extent arsenic is used by American physicians in the treatment of skin diseases, and also the results of their experience as to its therapeutical value. Information upon the following points is requested:

Are you in the habit of employing arsenic, *generally*, in the treatment of skin diseases?

In what diseases of the skin have you found arsenic of superior value to other remedies?

What ill effects, if any, have you observed from its use?

What preparation of the drug do you prefer, and in what doses do you employ it?

Address, Editor of *Journal of Cutaneous and Venereal Diseases*, 66 West 40th street, New York.

THE NEW YORK PHYSICIANS' MUTUAL AID ASSOCIATION has heretofore been confined to New York city and Brooklyn, where it originated and has some of the best members of the profession in its membership. It is now extended to include the entire state. Only reputable, regular physicians can join it. The object is to afford pecuniary aid at death or in case of urgent need of its members, by means of assessments and the interest on a permanent fund· Committees on admissions, on the claims of deceased members and on benevolence, with other officers, look after the interests of the association, none of these nor the examining physicians receiving pay. A spirit of brotherhood is strong in the profession, and this association is directly in line with it. It is open to the regular profession of the vicinity who are under fifty years of age and of good moral character, and information may be obtained from Dr. Robert Campbell, treasurer, 232 West 34th street, New York, or personally of Dr

Curtis, 17 Washington avenue, Albany. As to costs, three dollars must be paid on joining, and the subsequent yearly assessments, it is said, have amounted to about eighteen dollars, which, with this expansion, it is thought, will be lessened.

PERSONALS.

—Dr. Maurice J. Lewi ('77) is County Physician, in charge of the jail, by appointment of the supervisors, Albany county.

—Fred C. Fink, class of '87, from the office of Dr. George H. Newcomb ('55), Albany, is appointed to the position of resident physician in the Alms House.

—Dr. Robert Babcock ('84) has moved to No. 103 Grand street, Albany.

—We take great pleasure in quoting the following from the *Medical Record* of July 17:

> The competition instituted by L'Academie Royale de Medicine de Belgique in 1881, and continued through 1883, is closed and the report of the commission of the academie is made known. The question submitted was: "To Elucidate by Clinical Facts and by Experiments the Pathogeny and Therapeutics of the Diseases of the Nervous Centers, and especially of Epilepsy." A number of memoirs were submitted, which were entered by European authors of pre-eminent rank in this department of research. The honors of the competition have, however, been awarded to an American physician, Dr. George T. Stevens, of New York. His memoir is the only one selected by the Royal Academy for publication, and the only one for which an award was made.

Dr. Stevens was for several years a resident of and practitioner in Albany, and here first gave evidence of those qualifications which have since placed him in the front rank of the profession. We join with his many friends in congratulating him as the recipient of this rare but deserved honor.

—Dr. W. G. Steele ('86) writes us as follows:

MONGAUP VALLEY, N. Y., *July* 23, 1886.

Albany Medical Annals:

Enclosed find one dollar. Please put my name on your subscription list. I received a copy last March, and among the personals was the statement that I had opened an office in Liberty, which was not correct. Am practicing at Mongaup Valley, Sullivan Co., N. Y.; came here March 15, where Dr. Purdy, a member of the State Society, who died last December, had practiced for thirty years. My success has surpassed my expectations; have had plenty to do for the past three months.

Respectfully yours,

W. G. STEELE.

ALBANY

MEDICAL ANNALS:

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Vol. VII. SEPTEMBER, 1886. No. 9.

ABDOMINAL SECTION.*

BY A. VANDER VEER, M.D., ALBANY,

Professor of Surgery and Clinical Surgery, Albany Medical College.

Abdominal section, laparotomy, or whatever term we may employ, is as old as our race. Recall the operation that gave us mother Eve. Writers tell us that mention is often made of it in heathen mythology, but as being performed upon the dead only. There can be no doubt but that surgeons of all ages in the world's history have had the operation in mind, but that it rests now with modern surgery, with all its antisepsis and the use of anæsthetics to make it an established and frequently-done operation. It has been well known for centuries that incised wounds of the abdomen, without injury to the contents of the cavity, are not, and have not necessarily been, severe as to the mortality. The death-rate of the operation, as well as that of the surgeon's diagnostical laparotomy, in either case, is not to be compared with that of the non-operation plan in obstruction and allied conditions.

Within a few years past—not so long but that the most of us here will clearly remember—there have been many terms made use of to indicate an opening into the cavity of the peritoneum. Cæsarean operation, or Cæsarean section, is one of the oldest, and its meaning in obstetrics is well known. Gastrotomy, a term much used until recently, implies not only the operation of cutting into the abdomen, but through into the stomach itself. And then of late we have the term gastrostomy, which means the formation of an artificial opening into the stomach for the purpose of feeding the patient. Laparotomy is a term now much used by various writers, but which really means a gastrotomy of either the lumbar or inguinal regions. The name was first employed by Dr. John Ashhurst, Jr., of Philadelphia, in 1874, as an exploratory operation upon the abdomen for the relief of an internal strangulation or intussusception. Few writers in this country have done so much to popularize the term as has Dr. T. G. Thomas, of New York. As is well known to you, Mr. Lawson Tait is fond of the term abdominal section, and in the median line of the abdomen.

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* Read before the Medical Society of the County of Albany, Wednesday evening, April 21, 1886.

It is not my intention to tire you with any remarks upon the operation for removal of ovarian tumors or the supra-vaginal hysterectomy, but to confine myself more especially to such conditions as acute peritonitis, salpingitis, and rapid intestinal obstruction.

It is at present an admitted fact that many operations within the abdomen that a few years ago were considered impossible, now, by aid of antisepsis, are made a success; and yet it is true that the operation of abdominal section for relief of the conditions I have briefly mentioned has as yet received but slight endorsement from a great many in the profession, and but little, if any, encouragement from the public. We stand with reference to the performance of the operation as we did in regard to ovariotomy twenty-five years ago—a few brilliant results, but many failures and many points yet to be discussed and settled in the minds of surgeons. It is true that Parkes, Bull, Dennis Fowler, and others, have done splendid work and been rewarded by seeing some of their cases recover; yet to-day it is an operation gaining a foothold but slowly.

If we consider the subject of intestinal obstruction, we must admit that it is by no means of infrequent occurrence, and that the record, as well as in wounds of the abdomen and contents, is almost invariably fatal. We know well from our pathological studies that certain lesions occur in which it is impossible for medical treatment to be of any avail. One is inclined to take his own experience and use it as an argument in the desperate cases that present, and insist upon it with friends that the unfortunate patient be given the benefit of what may seem to them a very severe and dangerous operation.

In a paper presented to the Medical Society of the State of New York in February, 1872, on "Report of Cases of Peri-Typhlitic Abscess," I made the suggestion that, in our acute cases of perforation of the appendix, an abdominal section be made, the contents of the peritoneal cavity washed out, and such repair brought about as was possible. Yet up to this day little, if any, progress has been made in any way in treating such cases. Sad and sorrowful is it, 't is true, but they all die, and our present treatment does little, if any, good.

For a moment let us consider a few of numerous cases that have come under my own observation.

Mr. C., aged 21, painter by trade, treated for three days for painters' colic. I saw him a few hours before his death in consultation with his physician, Dr. Graveline, and made the diagnosis of intestinal obstruction. No operation was allowed. He died after an illness of seventy-six hours, having previously been in perfect health. Autopsy revealed a knuckle of intestine, ileum, caught in a rent of the mesentery and held there by slight adhesions until complete strangulation occurred. An abdominal section might have saved his life.

Another case which I saw with a medical friend gave history of passing gall-stones, with obstruction following. Patient and friends opposed an operation. She lived two weeks, and post-mortem revealed an obstruction in small intestine by gall-stone and fecal concretions that could have been reached by abdominal section only. Another case of the little boy, known to some of us, dying of intussusception at the end of the third day, could have been treated by abdominal section.

It is true that at the present time there is great difference of opinion among surgeons as to the treatment of intestinal obstruction. It is necessary that as careful and correct a diagnosis as possible be made in these cases. If impacted feces, if intussusception, if foreign bodies within or tumors pressing without, be the cause, a line of medical treatment can be tried; but when thoroughly done, it ought not to be said that nothing more can be offered in the way of operative interference.

Mr. Jonathan Hutchinson, of London, is one of the number who believes in what he terms abdominal taxis under an anæsthetic, and is opposed to early interference, and later, thinks it of little value, at the best. By abdominal taxis he means a thorough kneading of the abdomen, with inversion of the patient, shaking him, tossing him in a blanket, and a variety of rough gymnastics, the object being to dislodge the bowel or untwist the volvules. At the same time he uses large enemata and laxative medicines. If these means do not succeed, he waits and keeps the patient on a low diet, gives opium or belladonna internally, and subsequently repeats the abdominal taxis. He reports a series of interesting cases in which a cure was effected by these means. He favors laparotomy as a last and most desperate resort.

Mr. Frederick Treves, and many others, take the opposite side of the question, considering the conditions that produce acute obstruction to be, for the most part, of a necessarily fatal character, unless speedily relieved. They do not waste time in what they regard as useless, if not injurious, manipulations, and proceed to open the belly as soon as assured that the case is one of serious obstruction, and not of obstinate constipation.

Mr. J. P., aged 46, farmer, married. Has paid much attention to the raising and curing of tobacco. Suffered for the past eight years from attacks of pain in and about the epigastrium, which have been thought due to indigestion, to passing thickened bile and to constipation. He was treated in many ways by many doctors. Always would get relief when procuring a good movement of the bowels, and by very small anodyne after it. During the past winter the attacks of pain have grown more frequent and severe. For the past five or six years he has been losing flesh gradually and feeling well only a portion of the time. His friends thought his condition largely due to continuous hard work. Thursday, March 18, 1886, he was taken with his old pain, which yielded, however, to small doses of opium, and he was better for thirty-six hours. On Saturday he ate quite freely of corned beef and boiled cabbage, and soon after was much worse, vomiting contents of stomach and suffering severe pain afterwards. His physician, Dr. Elwood, of Schenectady, was called again, and relief was afforded by small doses of opium and carminatives, also a rectal enema, the last causing a small movement of the bowels. Tuesday morning he vomited freely, and expressed himself as feeling badly. Presented an anxious appearance of the face; located pain below xyphoid cartilage. There was little tenderness on pressure, with no abdominal distension. Was given small doses of calomel and mild laxatives, but no free movement of bowels followed. Small doses of anodynes afforded relief from pain. Took some nourishment, but did not retain it well. Urine passed freely. On Wednesday and during the night he was quite comfortable, and on Thursday, after a full rectal enema of soap and warm water, there was a large, free movement of the bowels; yet during that night, also Friday and Saturday, he vomited very freely and was much exhausted. Pain was not great, but he was decidedly restless. I saw him with Dr. Elwood on Sunday, March 28, at 3 P. M., and gave him a thorough examination. There was no distension of the abdomen, no particular zone of tenderness on pressure, no jaundice; urine normal in appearance; no impacted feces; no tumor could be defined (placing him in many positions for examination); no evidence of hernia. Thought he had not passed any gas from the bowels for thirty-six hours. With his physician I believed it a case of partial obstruction of the bowels due to slight invagination or grasping of some portion of the small intestines by old adhesions or internal obscure hernia. Hands and feet were warm, surface of body warm, pulse 84, temperature 100°. Had not vomited in ten hours. Was very thirsty, taking pieces of ice, also brandy and cold tea. Quite restless and much emaciated. Has never vomited blood. I suggested large enemata of tea made from chamomile flowers and to give him a tablet of morphine (1-6 gr.), with atropia (1-150 gr.) every four or six hours, as needed to afford rest; also such nourishment as he could retain. Was very comfortable Sunday night, all day Monday and Monday night. Tuesday morning he began to vomit large quantities of fluid, mixed with fecal matter. No movement of the bowels had followed the large injections, nor escape of gas. I saw him Wednesday, March 31, at 12 M., and found him greatly exhausted, anxious look of face, slight coldness of extremities and surface of body, very restless, pulse weak and 100, temperature 102°; could retain only for a few hours liquids taken into the stomach. No distension, no tenderness and little pain. Laparotomy was suggested, but friends, as well as Dr. Elwood and myself, considered patient too feeble to bear it. He continued to sink, and died April 1, at 4 P. M., illness having lasted about thirteen days. Autopsy was made April 2, 1886, twenty-four hours after death, by Drs. Elwood and McDonald, and showed a constriction of the jejunum about eighteen inches from the pyloric orifice of the stomach, in length a little over two inches, and through which only a small probe could be passed. The gut was about the size of the index finger, the walls being thick and very dense, and when cut into had the appearance of carcinoma. Above the constriction the intestine was very much dilated, a large pouch having formed, containing fecal substance giving the appearance of being well digested. No evidence of any disease could be found elsewhere. Could not an operation of excision of the gut have been done here?

It seems to me that the important point for us to consider is, first, as to the proper time for operating in these cases of intestinal obstruction. We should be cautious not to delay too long. When the period of collapse comes on, accompanied with coldness of the hands and feet, it is probably then too late to undertake a laparotomy. But if, previous to this period, we have the warning in fecal vomiting, or of bilious vomiting, greenish or spinach-like in character, and all means having failed to afford relief, we should now use strong arguments and should endeavor to persuade the patient and friends that every thing is lost in waiting. Public opinion needs encouragement in seeing some recoveries in these dreadful cases of intestinal obstruction, and it becomes us to be exceedingly clear in our diagnosis, and endeavor to educate the people to the belief that operations are of value and will save life.

As a profession we are not infallible, and never will be, in the diagnosis of obscure intestinal ailments, and diagnostical laparotomy is but in its infancy. Much teaching, not only of members in the profession, but of the people, is required.

As to wounds of the contents of the abdomen, a line of treatment is perhaps becoming more established, and that is, an early operation for closing the openings in the intestinal canal, for controlling hemorrhage, and to wash out and free the abdominal cavity of whatever foreign substance has found a lodgment there.

Operations performed upon the gall-bladder, the spleen, pancreas, the liver, the kidneys and mesentery are slowly, hesitatingly, but surely gaining ground.

As to the surroundings for abdominal section, unquestionably it is better that such cases be taken to a private, well-regulated hospital, where cleanliness, good experienced nursing, rest and all surroundings are of the very best. But this is not always possible. Next, if we are called to operate at the house of the patient, the room which is to be occupied should be put in the best possible sanitary condition. Carbolic spray should be used freely before the operation. Instruments and sponges should be kept and washed in a weak mercuric-chloride solution. The sponges should always be prepared after Tait's method. The best of different sizes of catgut and silk ligatures should be ready and at hand. It is hardly necessary to state, and yet it may not be generally known, that recently as much as five feet of the small intestine have been removed, and yet the patient recovered.

As to the manner of making the abdominal section, undoubtedly, in the majority of cases, the median incision is the best, as it gives a better opportunity to search for the point of obstruction. In making the incision, I believe it is well, with the aid of the artery clamps, controlling hemorrhage, to enter the abdominal cavity as quickly as possible; that the old method of slow dissection upon the groove director must yield to the more modern use of simple forceps and knife. Whatever delays the operation and prolongs the use of the anæsthetic, it seems to me, lessens the chances of the patient's recovery, the shock of the operation upon the nerve centers being greater in proportion to the time occupied; and herein consists the advantage of experience in doing this line of surgery. It is not necessary that the linea alba be found in all cases. I have had excellent results in going directly through the muscular tissue, and have no reason to regret doing so as yet. When the abdominal incision has been completed and the intestines roll out distended, as they often are, to their fullest extent, it is then we meet with our greatest embarrassment in finding the point of obstruction. If it be the large intestines that protrude, we know that the constriction must be low down. If the cæcum is found flattened and only the coils of the small intestine present, then we may be equally certain that the obstruction is higher up. If, now, this distended condition prevents our finding the lesion, I believe then it is good surgery to open the most prominent coil of intestine that presents, let out the gas and contents, and after distension has been relieved, close the opening as you would any similar wound, and now make search (which is likely to be successful) for the point of obstruction which is causing all the trouble. In doing operations upon the intestines, we must be prepared to employ all the various forms of sutures that are known for bringing together the ends of the intestinal canal, and the enclosing, oblique, transverse, longitudinal, or any form of incision, will answer.

One of the most brilliant modern advances, made recently by aid of abdominal section, is in opening the stomach and doing digital dilatation of the pylorus for chronic non-malignant stricture. The same may be said in relation to operations for old hernias, the attempt at invagination being no longer practiced, but by direct incision removing the sac and closing the neck, proving to be as feasible, with as little risk, and far more successful in the permanent cure afforded the patient.

As to method of closing the abdominal incision, I believe that employed for so many years by Sir Spencer Wells to be the best, and that is by means of the deep through-and-through abdominal sutures, bringing the surfaces of the peritoneum in apposition, as well as the muscular portion and the skin at the same time. I have little hopes of the method suggested by some at the present time, of bringing together first the peritoneum by means of the continuous catgut suture, and then the muscular layers and skin separately, and thereby increasing our ratio of recoveries. Probably there is no better external dressing than the simple Gamgee pad and adhesive plaster.

Mrs. M., married, aged 38; no children. Had for several years uterine fibroid; at times quite severe hemorrhage. Saw her first with Dr. J. M. Bigelow, in September, 1873. Tumor had become jammed down, as it were, and fixed in the pelvis, and patient was suffering from local peritonitis. Within a week this became general, and she died after forty eight hours of severe suffering. Autopsy revealed an insterstitial myoma that could have been removed by an hysterectomy.

Miss V., aged 20, whom I saw with Dr. Bigelow in May, 1875, had suffered several years from painful and obstructed menstruation. Had then been ill for three days from localized pelvic peritonitis, and died at the end of the fourth day in a condition of collapse. Post-mortem showed a double salpingitis (now classified as pyo-salpinx), with rupture of the sacculated tube on right side, contents escaping into the peritoneal cavity, tube on left side dilated, containing two sacs, the size of a hen's egg, filled with pus.

The following case, in which I was requested by Dr. H. M. Paine, of this city, to hold the post-mortem, had been under the doctor's care for some time for uterine displacement and inflammation of the broad ligaments. Autopsy held July 7, 1875. Mrs. B., aged 42 years. Body somewhat emaciated; abdominal cavity greatly distended. Internal examination showed the folfowing: Small intestines distended to their utmost with gas and fluid, the distension extending from the pylorus to a point about six or eight inches from the ileo-cæcal valve. This portion of intestine was entirely collapsed and covered by quantities of pus, which had resulted from the rupture of an abscess lying between the folds of the broad ligaments. Bladder nearly empty. The walls of the uterus were somewhat thickened and congested. Left ovary and Fallopian tube about normal. Right ovary apparently healthy, but the Fallopian tube, with its fimbriated extremity, was immensely hypertrophied and congested. Recent peritonitis had caused slight adhesions of the omentum to the intestines, also of the folds of the intestine one to the other. Liver, kidneys and spleen apparently normal. Thoracic cavity not examined. The omentum on each side was firmly attached to the broad ligament and drawn into the pelvic cavity.

The next case, that of Dr. B. Wood, dentist, of this city, I attended in 1875 with the late Dr. U. G. Bigelow, in a sickness lasting nearly three months, attack coming on as an acute jaundice. At the autopsy the body was found very much emaciated and very yellow. On section all the tissues were found tinged with bile. Stomach, both orifices and membrane normal. Mesentery normal, as well as the spleen and kidneys, the latter being much discolored with bile. The lungs, with the exception of a slight adhesion at the apex of the right lung, presented no abnormal condition. The heart was normal; the mitral valves alone were slightly thickened. The pericardium was natural. Pancreas very hard to the touch. At the head was discovered a hard, distinct mass, about the size of a hickory nut, surrounding and involving the vessels, the ductus communis and including the walls of the duodenum. The duct pancreatic was open. The gall bladder was very much distended with a glairy,gelatinous fluid containing no trace of bile. The gall duct was very much distended and convoluted. Liver very dark, black-green color, surface studded here and there with small cancerous (secondary) deposits, cheesy in appearance. Liver capsule easily removed.

Liver tissue firm. The little finger could be pushed through the distended hepatic duct into the left lobe four or five inches. The same was true of the right lobe to a more limited extent. Bladder quite full of urine. This case an early operation might have relieved by excision and saved patient.

I was requested, November 5, 1875, by Dr. C. Devol, to hold an autopsy on a boy, aged about ten, who, while running a short time previous, had fallen upon the end of a stick which he held in his hand. Soon after he became jaundiced and died, without abatement, in a condition of delirium. Found local point of inflammation about ductus communis cohledicus, with adhesions, causing complete closure of the calibre of the duct. Would an early operation have done any good?

The following case was one of acute perforation of the intestine; traumatic. Pat. J. F., aged four years, injured about forty-eight hours previously either by a barrel falling upon him or by the wheel of a cart striking his abdomen. Held autopsy in connection with Dr. John Thompson, of this city, September 25, at 3:45 P. M., patient having died the 22d, at 3 A. M. Found one and a half pints of fecal fluid in abdominal cavity. Mesentery very much discolored. Rupture of upper portion of jejunum. Rupture of blood vessel in mesentery opposite tenth and eleventh dorsal vertebræ. Left kidney healthy; right the same. Left pleural cavity contained about a pint of bloody serum; right cavity a little less. An ounce of serum in cavity of pericardium. Right auricle distended; left empty. Mitral valves and semilunar valve of aorta healthy. Would a prompt, early laparotomy have been of service in saving his life?

Mrs. W., aged 53, married, very fleshy, mother of two children. Was taken suddenly ill March 10, 1874, after having undergone sudden and violent exercise. Had been under treatment for some time for uterine trouble. Saw her in consultation with Dr. J. M. Bigelow, and agreed with him in his diagnosis of acute pelvic peritonitis. She died in four and a half days from the time of her first pain. Autopsy revealed a small ovarian tumor on left side, about the size of a cocoanut; long pedicle, which had become twisted, causing strangulation, with peritonitis. A diagnostic laparotomy in this case would probably have saved her life. That severe cases of general peritonitis will sometimes recover is known to us all.

Mrs. H., aged 32, after third confinement, at the end of the second week, developed general peritonitis. I saw her September 20, 1880, with the late Dr. Hays, on the sixth day of her serious illness. Abdomen enormously distended. Was taking as much opium as she could bear. Advised puncture of coils of intestine with sharp point of hypodermic syringe in fifteen to twenty places, which was done, allowing an escape of much gas, with marked relief and ultimate recovery. Opium treatment was followed out thoroughly.

J. N., aged 21, sick most of the month of August, 1870, with general peritonitis. Abdomen greatly distended. No movement of the bowels for fourteen days. Held well under the opium treatment. At the end of this time, while using large enemata, passed some hard, round fecal balls, and soon after distension disappeared and he recovered.

December, 1882, saw Mr. S., aged 72, with Dr. F. G. Mosher. The patient had had a right inguinal hernia for many years. Had worn a truss, but for the past six or eight days had left it off. Three days before, in pushing back hernia, he had some pain, and the gut did not return; he had no movement, and within twenty-four hours began to vomit. This was followed by complete obstruction, every form of treatment failing. Tried introduction of hand into rectum only to cause rupture of the rectum about two or three inches up. Autopsy showed constriction of small portion of small intestine near old rupture. Laparotomy might have saved his life, and I ought to have done it.

May, 1882, I saw with Dr. Milbank, Mrs. H., aged 45, who had been ill about ten days with obstruction of the bowels. She was immensely distended. Every form of treatment failed to afford relief, and death resulted. Diagnosis made before death of stricture of the rectum high up, was found at the autopsy to be the case, owing to a small tumor, carcinoma, the broad ligament, left side, becoming adherent to rectum and surrounding the latter with adhesions. Ought an operation—laparotomy—to have been done? And yet in this case, while performing the post-mortem, after incision I made an effort to find the point of obstruction, but could not, and only after letting out some of the gas was I successful.

The following case, which I saw twice with the late Dr. William N. Hays, who promised to furnish me at the time full notes, but failed to do so, has given me much thought in its consideration: Mr. A. was shot with a pistol, 28 calibre, on the morning of April 17, 1885. He was in fair condition, and would have stood an operation—laparotomy—but the surroundings were so bad that I did not urge it greatly. He was put under the influence of anodynes and made comfortable, but only to go the way of all. The autopsy was held twenty-seven hours after death by Drs. William Hailes, Jr., F. L. Classen and William N. Hays, and notes taken by Dr. S. R. Morrow, to all of whom I am indebted for a report of the case. Body well nourished, weighing apparently about 200 pounds. Rigor mortis well marked. Presents on lower part of abdomen two wounds, each one inch above the inner third of Poupart's ligament and about equidistant from the median line; that on right side considered to be the wound of exit of a bullet. A line of ecchymosis stretches between the wounds, which is shown, on making an incision over it, to be due to the track of a ball in the adipose subcutaneous tissue. The distance between these wounds is about four and a half inches. There is also an elongated wound an inch long on upper part of right thigh, running from above downward and inward, surrounded by a region of ecchymosis. On making an incision over this, it is found to be superficial and the subcutaneous tissue infiltrated with a bloody fluid. The most important wound is six inches to the left of the umbilicus and five inches above the left anterior superior spine of the ileum. It is is round, with ragged, dark-colored edges, and exudes a purulent fluid. A crucial incision made through this wound into the superficial tissues shows a wound of the soft parts passing backward, inward and downward, and about one and five-eighths inches long, to opening in peritoneum. An incision was then made through median line of body opening into abdomen, and transverse incisions joined this at about the level of the umbilicus. Abdominal walls about one and a half inches thick, containing a thick layer of fat. A large amount of very offensive brownish-fluid escaped. Bowels very greatly distended. The internal wound of peritoneum was one-quarter inch in diameter, surrounded by extravasation and flakes of dark-colored lymph. Peritoneum generally dark from extravasation of blood and covered by layers and flakes of partly organized dark-colored lymph. The bullet was found to have perforated the great omentum about an inch above its lower edge, to the left of the median line. The bullet appeared next to have perforated both sides of a section of the small bowel, and to have passed between two other coils of small intestine and to have been deflected by them so as to take a direction from left to right and almost horizontal; then to have passed downward and backward again, making one perforation, and another some distance farther on at the junction of the mesentery with the bowel, and then to have entered the right psoas muscle. The bullet was found in the right psoas, resting on the brim of the true pelvis, anterior to the right sacro-iliac synchondrosis. The bone was not roughened nor splintered and the bullet only slightly roughened and flattened. On removing the bowels and locating the perforations, the first two were found opposite one another, sixty-one inches below the pylorus; nine inches below the last is the opening into the mesentery and bowel adjacent, and fifteen inches below the latter is a single opening into the bowel. It seemed as though the bullet entered the bowel by this last opening, passed through the cavity of the bowel and emerged at the mesenteric opening before mentioned. Tissues posterior to bowel wounds, in region of right kidney, deeply infiltrated and discolored by blood. At three or four points in mesentery, collections of thick pus were seen three-fourths of an inch to one inch in diameter. Other internal organs healthy.

Was this a case for operation?

EXTRACTS FROM CORRESPONDENCE.

Backward Children—Case of Intussusception.

Editor Albany Medical Annals:

Can you inform me where in New York or Pennsylvania there are schools for the purpose of teaching children to talk? I have a couple of cases, in different families, who, though healthy and enjoying play with their fellows, and articulating some few words, yet have made no advancement for the past couple of years or more. Parents are of course much concerned. If you can refer me I will be greatly obliged.

Had an interesting case of invagination in child of nine months, in good health, when suddenly taken with symptoms of pain; became fretful, feverish, vomited, bowels closed, nothing allayed vomiting, no medicine retained; nursed only to vomit again; used injection, had slight passage; no relief; continued efforts to relieve retching. On the second day the vomited matter became yellowish, then greenish yellow. At 4 P. M. had passage of blood. I could feel a fullness at one side of the abdomen, which was tender. I then made a trial of warm-water distension, whilst lower part of body was raised somewhat; and, after a short time, the child had another bloody passage, this time more mixed with feces; then quite a copious passage. Fullness could not be felt again. Gave opium and kept the child asleep most of the night, and to-day the little fellow is laughing and making its mother happy once more.

Pardon the young practitioner's desire to tell of his success. I am gaining in practice and hope to make a success here.

Very respectfully yours,

JAS. W. KING [A. M. C., '84].

EAST LIVERPOOL, O., *August* 4, 1886.

[Inquiry was made at the State Board of Charities in the matter of Idiot Asylums. The School for Feeble-Minded Boys at Barre, Mass., under Dr. George Brown, was well spoken of. This school was started about thirty-eight years ago by the eminent Hervey B. Wilbur, M.D., who died May 1, 1883, and has been under the care of Dr. Brown during nearly the entire period of its existence.

Dr. Wilbur afterwards opened an institution for idiots between Albany and Troy, which developed into the New York State Institution at Syracuse, which is the first established public institution for idiots in this country, and is the model for all kindred schools which have since sprung up. This Syracuse asylum, being a state institution, like almost all idiot asylums, is limited in the territory from which it can receive cases.

Dr. William B. Fish (Albany Medical College, class of '79) is superintendent of the Illinois Asylum for Feeble-Minded Children, at Lincoln, Illinois. At the ninth annual session of the Association of Medical Officers of American Institutions for Idiotic and Feeble-Minded Persons, held in Lincoln, Illinois, October 6, 7 and 8, 1885, Dr. Fish was elected vice-president of that association. Dr. Fish's predecessor at Lincoln, Ill., for nearly twenty years was Dr. C. T. Wilbur, who resigned October, 1883, and now is principal of the Private School and Home for Feeble-Minded Children at Kalamazoo, Michigan, and publishes *The Philanthropic Index and Review*, monthly, at Kalamazoo. Dr. Wilbur's list of references includes many eminent names, beginning with Dr. C. E. Seguin, New York.—Ed.]

Fracture of Skull—Loss of Brain Substance—Recovery.

Editor of Albany Medical Annals:

I have had a very interesting case which I will relate to you, and correct me if you think I am wrong.

On the 18th inst., David Stewart, age 32, was struck by a piece of coal falling 160 feet, fracturing his skull near the posterior superior angle of the right parietal bone. As soon as he was removed to the house I made an examination; the scalp was cut in V-shape, the flap hanging over the ear. At the angle of the figure was a depression a little larger than a silver dollar, the depression being filled with particles of coal-dust; then there was considerable hemorrhage from the wound and also from the nose. Thinking that the man could not live anyway, I gave him ether, in order to trephine; but, on removing the particles of coal and dust, I saw the brain substance oozing out between the particles of bone, and, thinking that particles of coal might be lying beneath the bone, I concluded not to trephine, but to remove the pieces of bone, which I did, and found a quantity of the coal. I removed all and the hemorrhage lessened. He lost between two and three fluid drachms of brain substance. I washed the wound as clean as possible, put in a drainage tube, and took five stitches after the operation, which took about an hour. I found the patient growing very weak, so I gave whiskey hypodermically. He came out all right, and rested quietly for two or three hours. I ordered cloths wrung out in hot carbolized water to be kept to the wound, and this treatment has been continued until to-day. I gave him quinine and morphine, per rectum, for two days and bromide by the mouth. I still keep up the quinine. To-day, the ninth day, I removed the sutures and the tube, and ordered hot flaxseed poultices. There was some constipation at first, which was relieved by a good calomel purge and an enema. I have taken his temperature from the morning of the 22d, and it has not exceeded 100½°. He is feeling well to-day, eats well and sits up in bed. It has been a very interesting case to me.

Yours truly,

E. N. Wright [A. M. C. '84].

Lehigh, Indian Territory, *June* 27, 1886.

STATISTICS ON CARCINOMA MAMMÆ, WITH EXTIRPATION OF AXILLARY GLANDS.

Editor Albany Medical Annals:

I have tried to gather for you what I could find in the shape of statistics on carcinoma mammæ, with extirpation of the axillary glands. Statistics on this subject are not as full and complete as on most other surgical operations, owing to the difficulty of following up the patients after their dismissal from the hospital or clinic, and even in private practice is this difficult.

The following statistics are all from reliable sources, and I have given you the authorities from whom I copied them. Those giving results as to a permanent cure were followed carefully for from *three* to *five* years after operation. I have tabulated them so as to show the immediate results of operations and, as far as possible, the ultimate results also. The method taught here, in about all the clinics, is the *complete* cleaning out of the glands, lymphatics and all the axillary connective tissue that is practicable. I have noticed that this has been a few times omitted, but in very emaciated women. The after treatment and antiseptic dressings seem to be the most important parts of their operation. Among these statistics are a few cases in which the axillary space was not opened, but Drs. Küster and Bilroth give theirs separately. These were all published at least two years ago—most of them in 1883—and, as they had necessarily to extend back several years, it may reasonably be expected that statistics at present would be somewhat better, though perhaps the last two or three years would not show very much difference. It is a subject on which I believe nothing has been written very recently. Hoping that such as they are they may be of some service to you, I will enclose what I have been able to gather, as follows:

*Prof. Bilroth's Clinic, 143 cases, 34, or 23.77 per cent., died from operation or intercurrent disease; 8, or 5.59 per cent., remained cured.

†Prof. Esmarch's Clinic, 225 cases, 23, or 10.22 per cent., died from operation, etc., and 26, or 11.55 per cent., were permanently cured.

‡Prof. Fischer's Clinic, 147 cases, 30, or 20.4 per cent., died

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* A. V. Winniwarter's Reports from Prof. Bilroth's Clinic.

† J. Oldekop, Langenbeck's Archives fur Chirurgie, Bd. 24.

‡ J. Henry, Langenbeck's Arch. fur Chir., Band 27.

from operation, etc., and 13, or 8.84 per cent., were permanently cured.

§ Prof. Volkman's Clinic, 131 cases, 10, or 7.39 per cent., died of operation, etc., and 15, or 16.19 per cent., remained cured.

‖ Dr. E. Küster, Augusta Hospital, Berlin, 132 cases, 19, or 14.39 per cent., died. Dr. K. has carefully followed 60 of his patients for over three years, and 13 of these remain well. 81 patients followed for two years, 16 remain well; 4 have become lost; fate unknown.

Prof. Bilroth, in his "Handbuch der Frauenkrankheiteng" gives an account of 305 cases, of which 15.7 per cent. were fatal, but adds that many of these were done after the old method; most of them both breast and axillary glands. Of those in which only the breast was removed 6.7 per cent. proved fatal, and in those where both breast and axillary glands were removed, 21.3 per cent. were fatal. Later he mentions 68 cases, all under the best antiseptic treatment, both breast and axillary; of these only 4 died, and one of these from secondary hemorrhage. None of these cases were followed up.

Very sincerely and respectfully,
J. W. Poucher [A. M. C. '83].

Berlin, *July* 21, 1886.

ABSTRACTA.

New Lenses for Microscopical Work.—Professor Abbé, of Jena, has made an invention in microscope lenses, which, if correctly reported, will work a new era in microscopal work. After five years' experimenting (rendered possible by a subsidy of $15,000 from the German government) Professor Abbé perfected a new combination which, it is claimed, more perfectly corrects both spherical and chromatic aberration than any previous one. Some of the lenses composing the objective are of silicious glass, the remainder being compounds in which borax and phosphorous are leading constituents. These compounds were worked out by Dr. Scott in conjunction with Abbé, and the objectives have been made by Zeiss. Dr. Van Heurck describes them as follows in the *Journal de Micorgraphie:* "The objective is homogeneous immersion, of a focal distance of three millimeters, or about one-eighth English measurement. It is not arranged for cover-glass correction, as this is not necessary, that function being obtained by means of the sliding tube of the body. It contains five lenses, and has a numerical aperture of 1.4, which is a trifle less than has been obtained in England and America (1.5); but as far as its optical qualities are concerned it is far superior to anything ever before made, the new glass permitting the absolute correction of all aberrations. The field is perfectly flat, the minutest object in the extreme edge of the field showing as sharply and clearly as though it were in the center. With the vertical illuminator an amphipleura (silvered) is resolved into pearls—not merely in spots, but over the entire frustule, and with such clearness that these pearls can be counted. In the study of other diatoms I have found details which have hitherto escaped notice. As to the bacteria, details of structure are shown that have never before been seen—details that will without doubt serve to differentiate them by ocular means. Accompanying the objective are three eye-pieces, two for direct use and one for photography. They are also made of the new glass and by entirely new optical formulæ."—*Druggists' Circular.*

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§ Sprengle, 131 cases of Breast Carcinom, from Prof. Volkman's clinic.

‖ Dr. E. Kuster, in Langenbeck's Arch. fur Chir., Band 29.

THE DIGESTION OF MILK.—Dr. M. Reichmann draws the following conclusions from a number of elaborate experiments as to the digestibility of milk in the human stomach (*Deutsche Medical Zeitung*, No. 82, 1885):

1. Boiled milk leaves the healthy stomach more rapidly than an equal quantity of unboiled milk.
2. The digestion of boiled milk is more rapidly accomplished than that of unboiled milk.
3. The coagulation of unboiled milk in the stomach is complete in five minutes.
3. This coagulation is not caused by the acid of the gastric juice, but by the influence of a special ferment (milk-curdling ferment).
5. The acidity of the gastric juice is at first due almost solely to lactic acid, and later in the process of digestion, to the presence of hydrochloric acid.
6. Hydrochloric acid first appears in perceptible amount forty-five minutes after the ingestion of half a pint of milk.
7. For the first hour and a quarter after the ingestion of milk the acidity gradually increases, and then decreases, until the milk has entirely left the stomach.
8. The curds of casein in digestion of boiled milk are much softer than in the digestion of uncooked milk.—*Therapeutic Gazete.*

WATER PURIFIED.—M. Stöffel, at Roubaix, by electrolysis of water, generates ozone, which kills the minute organisms, oxidizes all organic substances, aud precipitates the carbonates in course of dissolution.—*N. Y. Med. Times.*

AMENORRHŒA.—Sinapisms to the breasts, sufficient to cause marked irritation, but not to blister.—*Dr. Thomas D. Strong in Medical Press of Western New York.*

Dr. Lavagna's plan is as follows: ℞ Liq. Ammon. ℥ j, Lactis vel aquæ Oj, M. Sig. Inject one or two ounces, warmed, into the vagina, three or four times a day.—*Dr. Wolff in Courier Record of Medicine.*

ANTIPYRIN.—In the *Centralblatt für klin Medicin* is reported a curious case of inverted working of antipyrin. The patient was suffering from phthisis with moderate but long-continued and stubborn fever, and for ten days received from thirty to one hundred grains of antipyrin daily, with the usual result of lowering the temperature. At the end of ten days, however, he developed a rash similar to that of measles. The antipyrin was discontinued for a fortnight and the rash disappeared after a couple of days. During the interval, however, the fever returned with increased intensity, and finally a dose of thirty grains of the dry powder was administered in the morning. Shortly after, the patient complained of a burning sensation in the mouth, throat and eyes, he became nauseated and vomited, and within half an hour was seized with a severe chill, which lasted for two hours. The temperature, which, when the dose was given, was at 100.7° F., rapidly rose, until at the end of two hours it reached 104.1°. At this point it remained through the day, but the next day fell rapidly until it reached 97.1°, after which it returned to the neighborhood of 99°, where it remained. This unusual effect of antipyrin is difficult to account for. The reporter of the case is sure that the drug itself was free from impurities, as he used the same preparation with other patients without injurious effects. A possible explanation lies in the fact that the patient was taking minute doses of arsenic at the time. —*Northwestern Lancet.*

ANTIPYRIN in ciliary neuralgia attending inflammation of different tissues of the eye has been effectual in 15-grain doses.—*Ther. Gaz.*

PHOTOGRAPHING IN THE DARK.—With a lens made of rock salt it may be possible to photograph in the dark. The *Photographic News* states that Abney has succeeded in preparing plates which are sensitive to the rays lying beyond the red end of the spectrum, the dark heat rays, and with such plates used with a rock-salt lens there should be a possibility of photographing bodies which possess a high temperature, although that temperature may be far below that needed to render them self-luminous.—*Med. and Surg. Rep.*

COW'S MILK, one quart; water, one pint; dilute hydrochloric acid, half a teaspoonful; mix and boil. The resulting curds are soft and fine as from human milk.

Vinegar as an Antiseptic.—If we consider how rapidly cucumbers would decompose were they not kept pickled in vinegar, and if we reflect how long they continue in a good condition when thus preserved, we can only wonder that vinegar has not long since been looked upon as a good disinfectant. Certainly we know that the acid fermentation is due to the presence of bacteria, but we also are acquainted with the fact that some innocuous microbes are of great service in the destruction of pathogenic germs.

Dr. Engleman (*Cbl. f. klin. Med.*, 14, '86) has made a number of experiments with vinegar in diphtheria, and come to the conclusion that it is a powerful antiseptic of almost specific effect in that disease. He employed either common vinegar or the officinal acetum, internally 1:4, as gargle 1:2, and undiluted; as spray 1:2 or 3; if applied with a brush, undiluted. An addition of 3:10 vinegar sufficed utterly to prevent the growth of the micro-organisms. It is a special advantage that the taste is is not disagreeable, and that, even when applied undiluted, there is no danger of any cauterizing or intoxicating effect.—*Med. and Surg. Rep.*

The Quantitative Estimation of Sugar by Polariscopy.—Dr. Debout D'Estrées makes his analysis in case of glycosuria as follows: He ascertains the presence of sugar by a qualitative test, say by boiling the urine with caustic potash; having discovered its presence, he takes about an ounce of the urine and, after decolorizing it by a solution of acetate of lead and filtering, he places a portion of it in the polariscope and reads off the quantity of sugar at once. He uses Laurent's instrument. Cruise prefers the Yvon-Dubosc diabétometre on account of its simplicity and moderate price.—*N. Y. Med. Abstract*, July, 1886.

Triturations of Manganese.—According to Dr. T. F. Allen, an examination of some fresh and excellent triturations of the binoxide of manganese made by Boericke & Tafel shows the finest particles already in the first decimal trituration. One finds some comparatively large spongy masses, about ten micro-millimetres in diameter, looking like slag from an iron furnace, and now and then a collection of particles as though one of these spongy masses had disintegrated, which is probably the case. These finest particles are found scattered over the field, and are of uniform size, looking like minute nodules of specular iron. They measure not less than 0.4, nor more than 0.3 of a micro-millimetre in diameter. The same particles are found sparingly in the 3^x trituration, none finer.—*N. Y. Journal of Homœop.*, July, 1886.

Terebene.—A foreign pharmacist shook together in a bottle one part of sulphuric acid with five parts of turpentine. He covered the bottle with a thick cloth as a precaution, but still had to buy a new suit of clothes.—*Am. Lancet.*

On Contusion as a Determining Cause of Neoplasms.—We all know how much the question of the *rôle* of contusion has been discussed in the development of cancer and tumors in general. For my part, I have always admitted this cause not only for the malignant new growths, but also for the most benign, such as cysts, lipomata, etc. One of my internes, M. Le Clerc, has, under my directions, accumulated a quantity of material, and has prepared a thesis giving the actual state of our knowledge upon this subject. The following are the conclusions reached in his thesis. 1st. Contusion has an undeniable *rôle* in the etiology of neoplasms. 2d. It acts by exaggerating the reparative progress going on in the center of the tissues, and by creating in the wounded part a *locus minoris resistantiæ.* 3d. It is, however, only a localized cause, and cannot produce by itself a neoplasm; to do so it needs a diathesis that we will call neoplastic, which is secondary, and depends upon arthritmis.—*Prof. Verneuil, in Medical Times.*

Belladonna in Sterility of Females.—I suppose it has fallen to the lot of almost every practitioner to be consulted by married women who never were pregnant as to the cause of their barrenness. Apparently they enjoy the best of health, and have never suffered from any irregularity of the sexual apparatus. To such I have, on several occasions, prescribed belladonna internally, and have found that, after taking the medicine for some weeks, they became pregnant. I have seen this happen so often that I am constrained to regard the occurrences as something more than accidental. I shall not venture to theorize upon its action, but will merely mention that I have observed that the external genitalia become more relaxed, and the os and cervix uteri somewhat softened and pliable, during the treatment.—*J. Harris Jones, in New York Medical Journal.*

Calomel in Cardiac Dropsy.—Jandrossic (*Dtsch. Arch. f. klin. Med.*, xxxviii., 1866) gives three or four grains of calomel with an equal amount of jalap, from two to four times daily. Sudden increase of urine is noticed usually on the second (sometimes as late as the fourth) day. It is necessary to check the purgative action of the calomel by means of opium. It is generally sufficient to continue the treatment for two days, and wait until diuresis occurs. Calomel appears to have a specific action in dropsy of cardiac origin; it does not cause diuresis in healthy subjects, and is valueless in renal dropsy. The author believes that calomel acts not upon the kidneys, but upon the blood, causing the latter to absorb the fluid from the tissues.—*Southern Practitioner, Nashville.*

Blistered Feet.—Salicylic suet (two parts of salicylic acid and ninety-eight parts of mutton suet) is used in the German army for foot sores, instead of the salicylic powder formerly employed.

A Psychological Curiosity.—A harmless monomaniac, nearly an octogenarian, who had been in bed for twenty-seven years, having the delusion that his satanic majesty always stood at his door to prevent him from going out, suddenly, one morning in June, took it into his head that the devil was gone, whereupon he got out of bed, and with nothing on but his shirt, walked down to the quay (nearly a quarter of a mile) and jumped over. Although a boat put off from a vessel, he swam ashore. Nobody knowing him, he was taken to a public house, and a medical man was sent for. He was taken home, where he remained two or three days in bed, all the better for his dip. He has been to church, and is now about to resume his former calling, that of a preacher.—*Brit. Med. Jour.* [Read " Very Hard Cash " for a story of a similar recovery.]

Binoxide of Manganese in Menstrual Irregularities.—Dr. Thomas J. Kearney, of New York (*Med. Record*, August 28), states that he has derived good results from doses of two grains, night and morning. He emphasizes the caution given by Ringer and Newell, that it must not be used in cases of acute congestion and in general conditions of sthenic reaction, neither would he use it during pregnancy. [" Waring's Therapeutics " allows twenty grains for one dose.]

Malarial Insanity.—What a title! nomenclature gone mad! What are you talking about ?—we can hear our readers say when we tell them that there is such a thing as malarial insanity. Yet Dr. Green recently told the St. Louis Medical Society that he had treated two such cases, pronounced by their friends to be insane, but not recognized as such himself, with anti-malarial remedies. In both, permanent recovery ensued.—*Med. and Surg. Rep.*

Rötheln.—In the *Lancet*, April, 1886, page 785, Dr. Glover says that the earliest symptom in rötheln or German measles, is a swollen gland in the neck at the back of the sterno-mastoid muscle. This symptom has been noticed four or five days before the rash appears.

" Kaskine, so prominently advertised of late as a substitute for quinine, is said by Dr. Hoffman to be nothing but saccharum album." [N. B.—The above extract is copied from a *homœopathic* journal, *The New York Medical Times*, September, 1886.]

Doctor Lawson Tait.—The honorary degree of M.D., has been conferred upon Mr. Tait, by the University of the City of New York. We wish for Dr. Tait, the same marvelous success which has attended the labors of plain Mr. Tait. Dr. Tait's father was Friend Tait, a worthy quaker.

Pasteur has been made a legalized Doctor of Medicine, *honoris causa.*

Pen Picture of Lawson Tait.—Mr. Tait is a much younger man than I had expected to find him. He is just forty-one years of age; he is about five feet nine inches in height, and weighs, I should say, two hundred and twenty-five pounds. His legs are short, body quite long and large; hands short and fat, but how nimble and dextrous! His hair is dark brown, slightly sprinkled with gray, and he wears it quite long. He has a full face, with short side-whiskers. His voice is pleasant and manly, and his whole make-up impresses you as belonging to a person of immense force. His manners are pleasing, and to friends cordial. I should say he was a good lasting hater. He is a native of Edinburgh, and was a pupil and very intimate friend of the late Sir James Simpson, to whose pictures he bears a striking resemblance. He does most of his operations before breakfast, and seems to be in a big rush during all the day.—*Letters from W. O. Roberts, in the American Practioner and News.*

A Definition of Gout.—Dr. Milner Fothergill gives the following succinct account of the pathology of gout (*Medical Record*): "When kidneys first appear in the animal kingdom, the form of urinary secretion is uric acid. Uric acid belongs to animals with a three-chambered heart and a solid urine (reptiles and birds). The mammalia possess a four-chambered heart and fluid urine, the form of urinary secretion being the soluble urea. When the human liver becomes depraved or degraded, it has a tendency to form primitive urinary products. To the question, 'What is gout?' the answer is: 'Gout is hepatic reversion, when primitive urine is formed by a mammalian liver.'"

Rust Prevented.—Prof. Calvert says that an iron blade immersed in a solution of carbonate of potash or soda, and then exposed to a damp atmosphere for two or three years, did not rust. Sea-water, with carbonate of soda or of potash added, did not cause rust.—*Southern Practitioner.*

Doctor ——— called at a house, and was met at the door by a little daughter of the family. He asked her to tell her mother that the doctor had called. The child went up stairs and soon returned. "Did you tell your mamma?" asked the doctor. "Yes." "And what did she say?" "She said, 'Oh pshaw!'"

Scopolia Lurida.—One part of leaves, five parts of alcohol, maximum dose gtt. xx in 24 hours, is an Indian mydriatic rivalling belladonna.—*Ther. Gaz.*

Acne rosacea has ceased after the repeated passage of urethral sounds, when it had previously resisted other treatment.—*Sherwell.*

The Pope is reported to have Bright's disease.

"Cuticura" ointment has been found to consist of petroleum jelly colored green, oil of bergamot, and two per cent. of carbolic acid.—*N. Y. Med. Times.*

Pasteur has many times noticed an improvement in health and weight of persons who have been inoculated after being bitten by rabid animals.

Beets are said to be emmenagogue, if taken in sufficient quantity. Dose of the active principle, betin, two to four grains. —*N. Y. Med. Times.*

Menthol.—A solution of two to ten grains in the ounce is said to be effectual in the treatment of the itching of urticaria, eczema and pruritus.

"THE STATE'S BEST CITIZEN, THE DOCTOR."

While others lie beside their wives
  In sweet, unbroken, quiet rest,
And strength, by slumber wooed, revives
  The body weak and mind oppressed,
There comes a hurried, thundering rap
  That to its depth the mansion shakes,
And starting from his first brief nap,
  "The state's best citizen, the doctor," wakes.

From out his cosy bed he crawls,
  And tries in vain to strike a light;
Then, stumbling o'er the cradle, falls,
  When baby screams in hideous fright,
And wife exclaims in accents mild,
  As from the bed she wildly starts,
"You clumsy lout!" And then, half wild,
  "The state's best citizen, the doctor," starts.

He slowly to the front door hies,
  His *robe de nuit* flapped by the breeze,
As groping 'round with half-oped eyes
  Against the rocker barks his knees,
As off a tack he madly jumps
  Against a door he runs his nose,
And 'mid the nether darkness stumps
  "The state's best citizen, the doctor's," toes.

To his inquiries at the door
  He hears a fearful story told,
How ma'am with colic rolls the floor,
  Or daddie 's got an awful cold,
Or Johnny 's got outside a nickle,
  Or baby 's mighty bad with fits;
And so, to get them out of pickle,
  "The state's best citizen, the doctor," gits.

—Dr. Flanner, before the Missouri State Medical Society.

ALBANY MEDICAL ANNALS:

A Journal of the Medical Society of the County of Albany

EDITORIAL COMMITTEE:

F. C. CURTIS, M.D., A. VANDER VEER, M.D., LORENZO HALE, M.D.,
JNO. BEN. STONEHOUSE, M.D., WILLIS G. TUCKER, M.D.

Vol. VII. SEPTEMBER, 1886. No. 9.

——WE are pleased to acknowledge the receipt at the hands of the translator and editor, Dr. C. M. Culver, of this city, of a very handsome presentation copy of "The Refractions and Accommodations of the Eye," a book of 600 pages, with 147 illustrations, some of them colored. It is the most pretentious work in book-making undertaken by a member of the profession here since that of world-wide fame by Dr. T. Romeyn Beck, and, although not original, the translator has been so happy in his version that it gives no hint of having been first written in a foreign language. It is published in Edinburgh, and the editor is rewarded by seeing his work put into beautiful form, the paper and typography being such as to delight the lover of an elegant page. The translation is from the work of E. Landolt, M.D., of Paris, to whom Dr. Culver was for a time clinical assistant. A review of it will be reserved for a later issue. F. C. C.

——PHYSICANS' MUTUAL AID ASSOCIATION.—In the notice of the Physicians' Mutual Aid Association, in the August number, a correction should be made. The yearly assessments do not amount to eighteen dollars, but to between six and seven dollars, that being the average yearly death-rate for the eighteen years of its existence. Thus far there have been six deaths this current year. There is an assessment of one dollar at each death, and the amount thus raised is paid to the heirs of the deceased, averaging between four hundred and five hundred dollars. The rate per thousand paid for insurance is between fifteen and eighteen dollars.

——Albany Medical College.—The new term begins Tuesday, September 21. The Introductory Lecture will be delivered in the College Amphitheatre at 12 m. on that day, by Professor Frederic C. Curtis.

——Albany College of Pharmacy.—The sixth annual course will open on Monday, October 4, in the Albany Medical College, with an introductory lecture by Prof. G. Michaelis in the Chemical Lecture Room, at 8 o'clock p. m.

BOOK NOTICES.

Electrolysis, its Theoretical Consideration and its Therapeutical and Surgical Applications. By Robert Amory, A.M., M.D., Member of the Massachusetts Medical Society; Fellow of the American Academy of Arts and Sciences; Fellow of the American Academy of Medicine, etc., etc. Octavo, 314 pages. Illustrated by nearly one hundred fine wood engravings. Supplied only to subscribers for "Woods Library of Standard Medical Authors" for 1886 (12 vols.. price $15.00), of which this is Vol. VIII. New York: William Wood & Company.

The action of electrolysis is always wonderful. The methods and results of its therapeutical application, in some of the cases delineated in this book, would have been regarded, twenty years ago, as incredibly wonderful. But the author does not deal in cures to the exclusion of the truth in regard to unsuccessful cases, which cases are often the "stepping-stones to higher things."

After a hundred pages of elementary matter, necessary to a statement of the principles of physics as applicable to electrolysis, the book presents a view of the natural laws which affect the construction and destruction of living tissues, in such a manner that a practitioner may apply the results of science to the conditions of diseased or hypertrophied tissues in a rational way, and may know when not to resort to electrolysis in those cases which are not amenable to its favorable action.

The scope of the book does not include the entire realm of electrical treatment; but, in the special field of electrolysis, after a description of methods of electrolytic application in disease, it gives forty-six pages to electrolysis of exophthalmic goitre, sixteen pages to hypertrichosis, and includes, besides, the treatment of scirrhous cancer, epithelioma, angioma, aneurism, varices, ovarian tumors, hydrocele, orchitis, urethral stricture, etc., etc.

INDEX CATALOGUE OF THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE, UNITED STATES ARMY. Vol. VII.

The seventh of this series of volumes has made its appearance, and brings the alphabetically arranged mass of material which the entire set is to produce down to "Leghorn." Sixty pages of fine print are necessary to give the references under "Intestine," forty under "Jaw," thirty under "Knee-joint," twenty-five under "Jurisprudence," forty-five under "Kidney" and fifty under "Labor." This gives an idea of the work and the mass of material brought together for reference.

WHY WE DO NOT ADOPT THE FRENCH METRICAL SYSTEM IN PLACE OF OUR ANGLO-SAXON METROLOGY. By Christopher Giles, Accountant, General Post-Office and Telegraph Department, Adelaide, South Australia. Introduction by C. Piazzi Smyth, Astronomer-Royal for Scotland. London: Robert Banks & Son, Racquet Court, Fleet street, E. C. 1886.

The author shows that the *basis* of the French system, the quadrant of a meridian circle, while practically a right line, is really a curve; hence its use is, as Sir Joseph Herschel styled it, "a scientific *sin*."

Next, the metre is shown to be *not* earth-commensurate, although it was claimed and intended so to be; the measurement of the quadrant passing through Paris, selected as the basis of the system, has been proved too small by 4,008 feet.

Further, this curve "taken—or rather mistaken—for a basis," even if properly measured, is not a mean of all quadrantal arcs of the spheroid earth (which arcs all differ in length from each other in every longitude), but was intended to be that particular arc which passes through Paris.

This French offspring, with all its crooked inborn sins, and with its non-cosmopolitan character, and representative of the folly of men, but of nothing whatever in science, attacks and seeks to destroy what its friends call "our barbarous and unscientific measures." The "barbarous and unscientific" is inherent in the metre, as is seen not only in its its origin, but, besides this, in the failure of attempts at universal daily use.

"It is true that in India, in 1870, an act was passed for the adoption in that country of this monstrous system; but rumors have reached us of its having been entirely abandoned, after creating much confusion."

The vehicle of the metric system—decimality—is its strong point. This very fact, that the French system is decimal *only*, makes its measures either too large or too small for convenient use, and gives rise to confusing decimal places. And it forever cuts off the use of binary and duodecimal subdivisions.

On the other hand, it is plain to see that decimals do *not* belong to the French only, but *any* system may be decimalized, while the French measures must remain decimal *only*.

Other literature on the metric system may be had from "The International Institute for Preserving and Perfecting the Anglo-Saxon Weights and Measures," Cleveland, Ohio.

"Waring's Therapeutics," noticed last month, should have been credited to P. Blakiston, Son & Co., Philadelphia.

EXCHANGES, PAMPHLETS, ETC.

"Information on Newer Materia Medica," etc. Epitomized fourth edition, revised and enlarged. Parke, Davis & Co.

"Messrs. William Wood & Co's. Publications," in *The Mail and Express*, New York, Saturday, August 28: Mr. Samuel Wood began bookselling and publishing in 1804. In 1815, he and two of his sons, Samuel S., and John, formed the firm of Samuel Wood & Sons. In 1822 another son, William, was admitted, and John retired. In 1836 Samuel sold his interest to the two sons in the firm. Samuel Wood died in 1861. In 1863 Wm. H. S. Wood, son of William, was admitted as a partner, and the firm became William Wood & Co. In 1868 William Wood retired, and Alfred S. Griffiths and Isaac F. Wood, one of Samuel Wood's grandsons, were admitted into the firm. In 1871 Isaac F. sold out to his partners. In 1884 William H. S. Wood became sole proprietor, retaining the firm name, William Wood & Co. The trade in miscellaneous books was relinquished in 1871, and the firm limited their business to medical books. In 1881 they sold their stock of books published by other houses to two of their clerks, who still continue the jobbing and retail business; while the business of William Wood & Co. is now restricted to medical books published by them.

American Public Health Association, Irving A. Watson, M.D., Secretary, Concord, N. H. Pamphlet circular of Fourteenth Annual Meeting, Toronto, Canada, Tuesday to Friday, October 5 th to 8th inclusive.

"A New Series of Manuals for Medical Students and Practitioners." A catalogue of "demi-octavo" text-books. P. Blakiston, Son & Co., publishers, Philadelphia, Pa.

"Report of the Delegates from the Philadelphia County Medical Society to the Thirty-Seventh Annual Metting of the American Medical Association; with the Resolutions of the Philadelphia County Society in relation thereto. Published by order of the Society."

"Positive Medication; a Pamphlet on Alkatrits, Alkametric Granules and Alkassayed Fluids." Frederick Stearns & Co., manufacturing pharmacists, Detroit, Mich. Samples also have been received.

American Agriculturist," for the Farm, Garden and Household. Fine illustrations, 48 folio pages. (including ads. and covers), monthly, $1.50 a year, 751 Broadway, New York. German edition same price.

"The Function of the Recurrent Laryngeal Nerve." From experimental studies in the biological laboratory of the Johns Hopkins University. By Frank Donaldson, Jr., B.A., M.D. From *American Journal of Medical Sciences*, July, 1886.

"Erysipelas and Other Septic and Infectious Diseases Incident to Injuries and Surgical Operations Prevented by Atmospheric Purification." Second Presentation. With an original woodcut, and report of cases of Laparotomy. By David Prince, A.D., M.D., Jacksonville, Ill. Second edition. From the *American Practitioner and News*, April 3 and 17, 1886.

"Intubation of the Larynx for Diphtheritic Croup." By E. Fletcher Ingals, A.M., M.D., Chicago. From the *Journal of the American Medical Association*, July 10, 1886.

Boston Society of Civil Engineers. Papers read March 3, 1886—"Comparative Size of Metric and Old Units with Reference to Convenience," by Fred. Brooks; "Report of Committee on Weights and Measures," Charles H. Swan, C. W. Folsom and C. W. Kettell.

"Is Disease of the Uterine Appendages as Frequent as Has Been Represented?" By Henry C. Coe, M.D., M.R.C.S., L.R.C.P. (London), etc. From *American Journal of Obstetrics*, etc.

"Malarial Manifestations Due to Traumatism." By Henry C. Coe, M.D., M.R.C.S. From *New York Medical Journal*, May 22 and 29, 1886.

"Meconeuropathia." By C. H. Hughes, M.D., St. Louis, Mo. Reprint from *The Alienist and Neurologist*, July, 1886.

"Preliminary Account of Experiments in regard to the Circulatory and Respiratory Changes Observed in Animals Placed in the Pneumatic Cabinet." By H. N. Martin, F.R.S., Professor in the Johns Hopkins University, and Frank Donaldson, Jr., M.D. From *New York Medical Journal*, May 15, 1886.

"Internal Improvements; Their Value to the Country and to the Individual Farmer and Laborer."

"Butter vs. Oleomargarine." Speeches by the Hon. Warner Miller, of New York, in the United States Senate.

Messrs. Root & Tinker (office, Tribune Building, New York), have presented us with a large colored engraving of the new building for executive offices of the Standard Oil Company, at No. 26 Broadway, New York. The height of the building is 167 feet and the depth 209 feet, being the distance between Broadway and New street; the frontage is 87 feet. Construction is fire-proof throughout; facade of granite; interior finish of white marble and mahogany. The total amount of floor space is nearly four acres.

"Medical Expert Testimony and the Hypothetical Question." By Wm. C. Wey, M.D., Elmira, N. Y. Reprint from the Transactions of the Medical Society of the State of New York, 1886.

"Report of the Board of Managers of the Pennsylvania Hospital." Philadelphia, Collins Printing House, 1886.

"Enucleation, with Transplantation and Reimplantation of Eyes." By Charles H. May, M.D., of New York Polyclinic, etc. From *The Medical Record*.

"The Treatment of White Swelling of the Knee." By A. B. Judson, M.D., Orthopædic Surgeon, etc., New York Hospital. From *The New York Medical Journal*.

"Remarks on the Uses of Papine." By Wm. J. Crittenden, M.D., Unionville, Va. From *Virginia Medical Monthly*.

Medical College Announcements—Albany Medical College, Medical Department of Union University, Albany, N. Y.; Bellevue Hospital Medical College, New York city; Boston University School of Medicine, Boston, Mass.; California Medical College, Oakland, Cal.; Central College of Physicians and Surgeons, Indianapolis, Ind.; Chicago Medical College; College of Medicine of Syracuse, Syracuse, N. Y.; Detroit Medical College; Georgia Eclectic Medical College, Atlanta, Ga.; Long Island Medical College, Brooklyn, N. Y.; Medical Department of Niagara University, Buffalo, N. Y.; Medical Department of the University of Buffalo, Buffalo, N. Y.; Medical Department of the City of New York, New York city; National Medical College, Medical and Dental Departments, Washington, D. C.; Northwestern Ohio Medical College, Toledo, O.; St. Joseph Medical College, St. Joseph, Mo.; Woman's Medical College, of Baltimore, Baltimore, Md.; Woman's Medical College of New York Infirmary, New York city.

Announcement of New York College of Veterinary Surgeons and School of Comparative Medicine, 332 East 27th street, New York city.

College of Pharmacy Announcements have been received from Albany College of Pharmacy, Department of Pharmacy, Union University, the sixth annual course of which will open on Monday, October 4, 1886, in the Albany Medical College building, Albany, N. Y.; Buffalo College of Pharmacy, Department of Pharmacy of the University of Buffalo, Buffalo, N. Y.; Illinois College of Pharmacy, Chicago, Ill.; The School of Pharmacy, Purdue University, La Fayette, Ind.

"Ninth International Medical Congress, Circular No. 2."

The International Record of Charities and Correction. Frederick Howard Wines, editor G. P. Putnam's Sons, New York and London, publishers. 20 pages, quarto, monthly, $1.00 a year.

The Pacific Record of Medicine and Pharmacy, (Spanish and English), 32 p. quarto, monthly, $2 per year, Chas. W. Moore, M.D., editor, San Francisco, Cal. Vol. I, No. 1, August, 1886.

The Texas Dental Journal, Dallas, Texas.

PERSONALS.

—Dr. Thomas Featherstonhaugh (A. M. C., '77) is the guest of Dr. C. M. Culver ('81), 36 Eagle street, Albany. Dr. Featherstonhaugh was secretary of the Medical Society of the County of Albany in 1881–82, and is favorably known in Albany, having practiced medicine here for several years previous to his removal to New York city four years ago. The doctor is vivacious, as was always natural to him, and seems well, but says that he is broken down physically, mentally and *morally,* and on account of his failing health has spent the most of the current year in Florida, where he expects to return next December. In company with Dr. H. K. Clarke ('62), formerly of Geneva, he owns and occupies a farm in Ocoee, Orange county, Florida. The doctors publish the *South Apopka Times,* eight pages, folio, monthly, 60 cents a year. Dr. Featherstonhaugh hopes to spend a part of each year in Albany.

—Dr. George M. Sternberg, U. S. A., stopped over in Albany, as the guest of Dr. O. D. Ball, while *en route* to the meeting of the American Association for the Advancement of Science, held in Buffalo, August 18 *et seq.*

—Dr. John A. Cutter ('86) is practicing in New York city. Office at the "Ariston," Broadway and 55th street.

—Dr. M. McHarg ('85) has removed to Dunnsville, Albany county.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY.

Minutes of the Special Meeting of September 13, to Take Action on the Death of Dr. J. W. Moore.

A special meeting of the Medical Society of the County of Albany was held in Alumni Hall, Albany Medical College, Monday evening, September 13, 1886, in memory of Dr. J. W. Moore, of Cohoes.

There were present: President B. U. Steenberg and Drs. T. P. Bailey, Bartlett, Bendell, Boyd, D. C. Case, Curtis, J. D. Featherstonhaugh, Wm. Hailes, Jr., Morrow, Murray, T. W. Nellis, Peters, Russell, Thompson, Ullman, Vander Veer, Ward, and Witbeck.

Dr. T. P. Bailey was called upon to act as secretary *pro tem.*

President Steenberg called the meeting to order at 8:45 o'clock, and said:

Gentlemen—The occasion of our assembling this evening is indeed one of sadness. We are again reminded of the uncertainty of life, though with such circumstances we have become familiar; yet when death comes into our own midst we seem to have a different realization of this great transition from life into eternity.

I have to announce to you the death of Dr. J. W. Moore, of Cohoes, which event occurred on the 9th instant, at about one o'clock P. M. Suddenly, while in the act of prescribing for a patient, he experienced strange sensations, and a few moments later became unconscious, though he had been able to interpret his symptoms and announce their awful meaning—"apoplexy and death." In the prime of life, in the full vigor of his usefulness and in the act of administering to the relief of another, he is without warning cut down and transferred to that bourne from whence no traveler returns.

Dr. J. D. Featherstonhaugh, of Cohoes, said:

Mr. President and Gentlemen—No one knows better than we that the issues of life and death are beyond our reach. Young or old, rich or poor, layman or skilled physician—naught delays the indomitable hand of death. To our brother it came as he had but a few days before wished—painlessly, swiftly. In the chamber of sickness, while he ministered to another, while the words of hope and comfort were almost yet on his lips, the dread summons came. With but a word of message to his loved ones, of quick recognition of his fate, and of trust in divine mercy, he fell asleep in that slumber that knows no earthly sorrow.

For those to whom his memory is dear this simple record of our sympa thy and expression of our loss is offered:

IN MEMORIAM—DR. JOSEPH W. MOORE.

The Medical Society of the County of Albany have heard with grief of the sudden death of their associate, Dr. J. W. Moore. No memento that they can utter can speak for him as does the monument that, unconsciously to himself, he built with his own hands in their hearts. Graven there may be found a living testimony of the many virtues of his generous and benevolent nature.

To those near and dear to him the Society tenders a most respectful sympathy, and joins with them in sincere sorrow. Here, where was brought the best fruits of his work and experience, the Society will miss his presence, his aid and his counsel, and with his large circle of friends will mourn in common his untimely end, and tenderly bear him in memory.

Dr. JOHN THOMPSON said:

Mr. President—It is with much sadness that we are assembled here this evening to do honor to the memory of our much lamented associate, Dr. J. W. Moore, of Cohoes. Though living at a distance from our place of meeting, there were none who took greater interest in the welfare of our Society. We can all bear testimony to his nobleness of heart and generous disposition. We shall miss his kindly greeting and the grasp of his manly hand. "Peace to his spirit."

Dr. C. E. WITBECK, of Cohoes, said:

Mr. President—An acquaintance with our late associate of nearly twenty years' duration enables me to testify to his many sterling qualities both of head and heart. A genial man, possessed of generous impulses, his fine address and pleasing manner made him extremely popular with both physicians and patients. As a physician he was enthusiastic in his profession, diligent and earnest, well informed in the medical literature of the day. To his patients he was devoted, attentive and sympathetic and much beloved by them. In his family he was a kind, affectionate husband, an indulgent father. Dr. Moore possessed the social qualities to an eminent degree. Always ready to entertain or to take part in any entertaiment, he won hearty friendships everywhere. As a guest he was always welcome and a general favorite with those with whom he came in contact. In his death our Society has lost a valued member.

Dr. MAURICE J. LEWI sent the following communication, which was read by the Secretary:

Dr. B. U. Steenberg, President of Medical Society of the County of Albany:

My Dear Doctor—At the last moment I find it impossible to be present at the meeting of the Society this evening, but I cannot permit the occasion of this memorial gathering to pass by without adding my tribute to the memory of our departed brother. Dr. Moore was my friend, and I never experienced to a fuller degree what true friendship meant. It seems impossible to realize that he is no more, that the tie which bound him to life has been severed and that only his memory and the recollection of his kindness and charity are left to his mourning family and sorrowing friends. Let us cherish his recollection, keeping in mind those qualities which made him the man we knew him, thereby perpetuating his memory more than can tablets of stone and brass. * * I am, very respectfully,

MAURICE J. LEWI.

[Remarks by Dr. Samuel Peters, of Cohoes, and by Dr. A. Vander Veer, of Albany, are unavoidably omitted from this number.]

ALBANY

MEDICAL ANNALS:

A Journal of the Medical Society of the County of Albany.

Vol. VII. OCTOBER, 1886. No. 10.

GLIMPSES OF EARLY MEDICINE IN ALBANY.

INTRODUCTORY ADDRESS OF THE FIFTY-SIXTH SESSION OF THE ALBANY MEDICAL COLLEGE.

BY F. C. CURTIS, M.D., ALBANY.

As we to-day inaugurate the opening of the fifty-sixth session of the Albany Medical College, it becomes my pleasing duty, as the representative of the Faculty, to extend a welcome to those who have assembled to avail themselves of the opportunities which this institution has to offer for medical study. There are few changes in the college to note. This occasion, however, brings to mind the recollection of the death of two who a year ago were associated with us—Dr. N. L. Snow and Dr. Henry March. As one of the Board of Curators, whose duty it is to pass the final verdict upon the fitness of students to receive their diplomas, Dr. Snow's kindly, yet conscientious, presence will be missed, as also his words of practical advice at the surgical clinic in which, as one of the surgeons of the Albany Hospital, he participated. He was held by the medical profession here to be one of our best advisers in surgery and medicine. Dr. March came less directly into contact with the classes, but as curator of the Museum, of which his distinguished father furnished the nucleus and most important part, the specimens brought before you have been a daily reminder of him. No one could have a more ardent love for the college and profession, and the memory of no member of it will be more tenderly cherished.

All the world knows that this year Albany has celebrated its bi-centennial as a chartered city. This old Dutch city, in which you have assembled for another year of instruction, is the oldest surviving European settlement in this country; for, although it is a long way back in the annals of the new world to July 22, 1686, when its charter was granted, it was in that charter referred to as an "ancient town," seventy-five years having elapsed since the little colony of Dutchmen erected a trading house here and laid the foundation of this large city, with its extensive merchandise, its homes of refinement, its asylums and hospitals and its many educational institutions. Your future *Alma Mater*, which, through its own lengthy history, has been fostered in many ways by the old city, asks you to give it the deference this morning which is the due of worthy old age. Albany deserves much for its cherishing care of education. The Albany Academy, erected by the city in 1815, in which the theory of the magnetic telegraph was first demonstrated by Prof. Joseph Henry, and where Dr. T. Romeyn Beck, a former member of the faculty of this college and the author of medical jurisprudence as a science, long served as principal, stands as a fine monument of its early regard for education. The Female Academy, whose imposing front adorns North Pearl street, dates back to the same period. This building which we now occupy as a medical college was erected by the city in 1817, to be used as a free school, long before the common school system of the state arose to supersede it. And, of more recent date, the city takes a justifiable pride in its large number of public schools, most liberally endowed; its private schools and academies, which, some of them, have a national reputation; its schools of technical instruction; the special departments of Union University here located; the public libraries and literary and scientific associations, which make Albany a notable centre of learning and speak highly for its fostering care, throughout its history, for education.

As our meditations naturally revert to the past on this bi-centennial year, a few glimpses at the conditions and events of early medical affairs here will not be ill-timed.

The pioneer settlements of the New World offered few attractions to physicians who had passed through the long courses of training which, two or three centuries ago, were considered requisite in the universities of Leyden, Padua, Paris, Aberdeen, Cambridge and Oxford. The care of the sick fell, therefore, upon those who were the most intelligent among the community, and it was quite common in all the American colonies for the government officials, schoolmasters and clergymen to give some attention to medicine and to become a little versed in its art or its domestic traditions. The Dutch West India Company, to which Albany owes its earliest existence, has the reputation of having been especially careful in making provision for the health of their sailors and colonists, and one of their regulations for the latter was that a so-called "comforter of the sick" should be provided. Usually the person serving in this capacity was one of their government officials, and the very first person on record as charged with the care of the sick here was Sebastian Jansen Crol, a worthy individual, who, besides medical and clerical duties as comforter of the sick, and I know not what else, was vice-director of Fort Orange. It was common for one man in those early times to fill a great many offices. Several of the Dutch dominies are known to have been familiar with the theories and practice of the times, and it is not unlikely that, as missionaries do now-a-days, they gave the matter study before leaving for the New World. Dr. Mancius, who, at an advanced age, was a practicing physician here at the beginning of this century and was one of the founders of the Medical Society of the County of Albany, received his medical education from his father, the Rev. Georgius Mancius, who two hundred years ago adorned both professions, preaching and practicing in this vicinity. Dominie Megapolensis, noted as the first clergyman to come to this colony, of which he was for twenty-five years a resident, and one of the most prominent in the early annals of Albany, also had some repute in physic. Of his sagacity in it, however, I have my doubts, for, from some things in his writings, I think, not unlike some practitioners to-day, he was too inclined to run after novelties, recommending to the Dutch vrouws very questionable procedures which he found in vogue among the Indians.

While it is probable that even up to the beginning of the present century there were comparatively few who devoted themselves exclusively to the practice of medicine, the physician being also a minister, farmer, merchant or mechanic, adapting himself to the frugal and primitive mode of life of the colonists, nevertheless from the earliest times there were regularly educated physicians here.

Surgeon Abraham Staats deserves mention as the first regular practitioner to come here from Holland; he was sent, with a ship-load of emigrants, by the first Patroon, in 1642, the same vessel bringing also the first minister, Rev. Dr. Megapolensis. He filled out a long life here, in a way worthy of emulation, being an enterprising citizen in various capacities, civil and military, as was the necessary custom at a time when good men were very scarce. He was undoubtedly a reputable practitioner, though of this not much is recorded, his practice taking up but a modicum of his time probably, since his clientelle could not have been very extended, Albany (or Beverwyck) then consisting of but twenty-five or thirty houses built along the river in proximity to the little log fortification known as Fort Orange. The people were, moreover, hardy pioneers, little likely to give way to sickness. Spinal irritation, dyspepsia from late suppers, malaria, nervous exhaustion, hysteria, laziness, and the like, were wisely reserved for a time when doctors were more numerous, and the "mind cure" was not the latest social fancy. I do not believe there was any dilettanteism in his practice. Somebody was certainly downright sick whenever the doctor was called up at night.

Besides Surgeon Staats, the pioneer of the profession, but two or three other physicians are mentioned in the first century of the history of Albany. In 1666 a Frenchman—De Hinse—was surgeon to the fort, and twenty years later he was succeeded by a Scotchman, named Lockhart, both coming here from Holland. The position they held was worth, it may be mentioned, 2s. 6d. per diem. Dr. Johannes de la Montagne was for a time vice-director of Fort Orange, and his name is associated with the earliest medical legislation, it being ordered that "ship-barbers shall not be allowed to dress wounds nor administer any potion on shore" without his consent. The names of less than forty physicians are known, during the seventeenth century, in the entire province of New York, and of these one writer unkindly, but no doubt veraciously, says that "by far the greater part are mere pretenders to a profession of which they are entirely ignorant."

It is worthy of note that this region was regarded by those who came to it as both fair and salubrious. Many instances are related of cures of consumption among those coming to the new country. Indigenous fevers were rarer here than in the New

England or Virginia colonies, but epidemics of imported diseases were not escaped, and of these small-pox was frequently terrible in its ravages. Its reputation for healthfulness was maintained in later years, in evidence of which the longevity of the inhabitants is instanced, and I find the statement that in the winter of 1785 there was but one burial in the old Dutch churchyard, and that was a case of death from accident, a child having been run over by a sleigh.

The eighteenth century was characterized by the occurrence of two extensive wars—the French war and the war of the Revolution. This city was central to important fields of both, and was the headquarters of the Northern Department of the Continental Army; of necessity it participated to a large degree in both of them. For the first hundred years of its existence the new country had been dependent upon Europe for its education in medicine. These wars gave a new impulse to the profession by the opportunities for instruction and study which they afforded, as well as by the demand they created for skilled medical officers. A war thus always does much to develop the medical science of a country. In the French war the English army was accompanied by a highly respectable medical staff, which contributed much to the education of many young Americans, especially through the military hospitals which were established. One of these was erected here, and thus early in its history Albany became a centre of medical education. It is probably the same one that existed during the Revolutionary war, and is described by Dr. Thacher, who was connected with the latter army, as situated "on an eminence overlooking the city," containing forty wards and capable of accommodating five hundred patients. It is this hospital that is referred to on the bi-centennial tablet on the site of the old Green street theatre, and was located where the Lutheran church now stands, on the corner of Pine and Lodge streets.* A large barn belonging to Madam Schuyler was also used as a hospital during the French war, and was filled with wounded troops who poured into Albany from the disastrous field of Ticonderoga. There was also a military cantonment across the river, at Greenbush, during the Revolution, which was maintained until 1822. But with all these the city was hardly able at times to meet the demands made upon it, the Dutch church and private houses being sometimes used as hospitals. After Burgoyne's defeat at Saratoga, Albany was filled for months far beyond its capacity with the wounded of both armies, not less than a thousand of these victims of war being thrown into the city, keeping thirty surgeons constantly employed. Thacher speaks highly of the skill of the English surgeons, who attended their own troops and whose operations he often witnessed, but he had the poorest opinion of the Germans, who looked after the Hessians.

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*It is extraordinary that in the annals of Albany so little mention is made of this important edifice and that it is hardly spoken of except in connection with a theatrical company who in 1769 were allowed to act in it. It was well worthy of a bi-centennial tablet to mark its site.

Both of these wars contributed a number of good medical men to this city who settled here at their close. Dr. Samuel Stringer, who served in both wars, being director-general of hospitals in the northern department of the Revolutionary army, filled out a long life here after the war was over; Dr. Nicholas Schuyler, an ardent patriot and intelligent surgeon; Dr. Hunloke Woodruff, a graduate of Princeton and highly esteemed as a learned physician; Dr. J. Cochran, director-general of the Hospitals of the United States during part of the war; and the brothers Willard, who were of New England birth and received their medical training in the military hospital in Boston under Dr. John Warren; these, with others whom it would now be neither pertinent nor possible to catalogue, composed and gave character to the profession of Albany at the close of the eighteenth century.

Albany, then an ancient city indeed, having fourteen years before celebrated its centennial, had a population of about five thousand. A Dutch city, modeled after the provincial towns of Holland, its habits, physiognomy, architecture, people, horses and dogs were Dutch. There were not more than five families, a historian states, that were not Dutch. Dr. Thacher, himself a New Englander, found them unsociable to strangers, disinclined to outside innovations, perfectly contented with themselves and their surroundings and indifferent to foreign criticism. There were no pavements on the streets, and while I freely acknowledge that some we have now are worse than none, yet our ways in this respect are being rapidly mended; there were no street lamps (though one is to be seen in the picture of Albany in 1805, at what was then the head of State street); sewers were not known, and swine were the public scavengers.

The late war had, however, brought strangers in; the iconoclastic yankee had found his way here; the Erie canal was talked about; railroads, on the highway of which Albany stands, were later developed, and with them the commerce and manufacture, which have added twenty-fold to the population in this century.

This was also a notable epoch in medicine. Hitherto the *theories* of different men had characterized its history; these were beginning to give way to *observed facts*, upon which basis of study the far-seeing Hippocrates attempted long ago to place it. The collateral sciences were beginning to receive exact study; contributions to physiology, anatomy and surgery were being made by John Hunter, Scarpa, Bichat, Cheselden and Pott, and to obstetrics by the eminent Frenchman, Baudelocque. William Cullen and John Brown had aroused new interest by their writing and teaching, and Jenner, who has saved more lives than any other human being, had just published to the world his immortal discovery of vaccination.

Prior to this time the means of education had been very limited, and the mass of the profession in this country were doubtless very ignorant of scientific medicine. Occasionaly one went to Europe for study, to Leyden esepcially in the early part of the eighteenth century, where Booerhave was the shining light, and later to Edinburgh to listen to the teaching of Cullen, who, it is said, was the first to break away from the established custom of lecturing in Latin, for which innovation most of my highly esteemed colleagues, as well as myself, are grateful. The standard of preparation was necessarily high, at least in scholastic knowledge, for the text-books were written in Greek and Latin, and after a long course of study graduates were required to publish and defend a thesis written in one of these learned languages. It is really a wonder that medicine ever made any progress with this hamper of scholasticism about it, although the dead languages have been to so recent a time the medium of expression in the German universities that even yet some of the older polyglot professors fall into them with bewildering proficiency. It is easy to see that the doors of the European universities were of necessity shut to the majority of those who in this new world proposed to study medicine.

In this country, the Medical College of Philadelphia, now the Medical Department of the University of Pennsylvania, was established in 1765. A little earlier than this a course of lectures on anatomy was begun in New York, by Dr. Samuel Clossy, a

Dublin graduate, and Drs. Middleton and Bard dissected before their students the body of a criminal, which is noted as the first instance of anatominal demonstration. In 1767 the medical department of Kings (now Columbia) College was developed; Harvard College established the third medical department in 1782, and Dartmouth in 1797, these constituting the medical schools of this country at the beginning of this century. Except to those in their immediate vicinity they were almost as inaccessible as if they had been in Europe, and by far the larger part of the profession at this time had never seen a medical college. Dr. T. Romeyn Beck states that there were then not probably over twenty practitioners in this state who [illegible] a medical degree. Of the thirteen physicians who organized the Medical Society of the County of Albany, in 1806, one was a graduate of Edinburgh, three graduated at Philadelphia, and one in New York, they being the young men of the time.

In fact, medical education was procured chiefly in another way, that is, by a system of apprenticeship. This was followed even by young men of good preparatory education and possessed of ample means. They entered into an indenture for a term of years, contracting that they should be taught medicine and surgery, and in return were to give their time to study and serving their preceptor as he might require. I imagine that much of their time was spent in wielding the pestle and compounding out of crude herbs the unappetizing mixtures largely in vogue, the vivid memory of which Dr. Holmes has brought down from his nursery life in association with the venerable family physician who, he says, "would look at the tongue, feel of the pulse and shake from his vials a horrible mound of ipecac or a revolting heap of rhubarb, good stirring remedies that meant business, but which left a flavor behind them that embitters the recollections of childhood." Nevertheless, this apprenticeship plan produced many good, practical physicians a hundred years ago. In the course of time the student absorbed the knowledge of his teacher and learned, moreover, the ways of the man in facing the ills of humanity, and I can easily believe that this way of learning medicine had many peculiar advantages, and that the student of to-day would gain much if it were made a serious part of his own preparation to practice medicine.

It would be interesting, if the limited time of this occasion permitted, to trace out what constituted a medical education at that time. Compared with to-day, the science of medicine was little developed. There was very little opportunity to study medicine by dissection, and, in fact, to the indentured student it was certainly impossible; there was hardly a public hospital in this country; pharmacy was but a rude science; the art of diagnosis in medicine and surgery was very rudimentary, and most of our instruments of precision and research were unknown. There were but two medical periodicals published in this country—the *Medical Repository* and the *Medical and Physical Journal*—files of which are in our college library. The contrast between the medicine of then and now is best shown by its accomplishments. In midwifery the death-rate has been reduced from one death in 100 to one in perhaps 300; in surgery there is an estimated gain of 35 per cent.; and the total of life in civilized countries has been lengthened 25 per cent. in the course of this century.

The steps which led up to this would fill volumes, and I cannot detain you with allusions to them, nor to more modern epochs in our medical history. But with us the present reaches almost back to this particular period, for the century was only in its twenty-first year when the Albany Medical College legitimately began its existence, in the course of lectures on anatomy with demonstrations, by one of the fathers of American surgery, Dr. Alden March, whose portrait looks down upon us this morning. There were then, besides the four colleges I have mentioned, but eight or nine others organized in this country, and half of these are now extinct. In the faculties of two of them, Fairfield and Castleton, Dr. March, and also Drs. James H. Armsby and James McNaughton, of this city, were leading members. This course of lectures, often encountering serious opposition, was carried on, with the assistance of Dr. Armsby, until after years of effort, by public lectures and the coöperation of the best citizens, the college was fully organized with an able corps of instructors, a good museum, since grown to be one of the most complete in the country, and a library, now especially rich in rare old books of the early time.*

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*The following medical schools were in existence prior to the commencement of Dr. March's lectures in 1821: University of Pennsylvania, organized in 1765; Harvard University Medical School, organized in 1782; Medical Department of the University of North Carolina, organized in 1796 (now extinct); Dartmouth College Medical Department, organized in 1797; Medical Department of Columbia College, organized in 1767 (extinct in 1813); College of Physicians and Surgeons, New York city, organized in 1807; School of Medicine of the University of Maryland, organized in 1807; Medical Department of Yale

In these glimpses of a time long gone by, I dare say our predominating reflection is upon the contrast between the poverty of resources then and the abundance that we possess now. But, without questioning the fuller results that we are able to secure to-day, I nevertheless have found that there were medical men of large ability and certainly of great accomplishment in the olden time. It seems as if we would be disarmed for the contest if we were deprived of the means which the nineteenth century has contributed, but, after all, there was good work done by the generations before us, and many physicians lived and practiced just as acceptably, and perhaps as successfully, then as now.

In reviewing the past, one lesson has been impressed upon me —that there are some elements that go to make up a successful practitioner that a medical school can hardly supply. Hippocrates said that four qualities are indispensable to a good physician—learning, sagacity, humanity and probity. The personal method of the apprenticeship plan was more likely to furnish all of these, and it would be well for the students of to-day, while struggling through the "mysteries and miseries of science" in pursuit of the first, to also cultivate the other three.

Sagacity digests learning and makes it an available possession; it leads you to see the world and men, not through others' eyes, but through your own; to study a sick man, not simply a disease; to be a counsellor, not simply a dealer in potions, to ticket off diseases and remedies; to appreciate that nature is a good physician and that "drugs are not the real curative agents provided by a higher beneficence;" that general principles will not serve as a substitute for common sense. A merely learned man is an

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College, organized in 1810; College of Physicians and Surgeons of the Western District of New York, Fairfield, organized 1812 (extinct 1840, graduated 589); Medical Department of Queen's College, New Jersey, organized 1814 (extinct 1816); Medical College of Ohio, organized in 1819; Medical College of Transylvania University, organized in 1817 (extinct 1859); Vermont Academy of Medicine, Castleton, organized in 1818 (extinct 1861); Medical Department of Bowdoin College, organized in 1820.

In addition to these, the following were organized prior to the full incorporation of the Albany Medical College in 1838: The National Medical College, Washington, organized in 1821; Medical Department of the University of Vermont, organized in 1823; Medical College of South Carolina, organized in 1824 (extinct 1839); Medical Department of McGill University, Quebec, organized in 1824; Medical Department of the University of Virginia, organized in 1825; Jefferson Medical College, organized in 1826; Medical School of the Valley of Virginia, organized in 1826; Medical College of Georgia, organized in 1829; Medical College of Louisiana, organized in 1831; Medical College of the State of South Carolina, organized in 1833; Medical Department of the University of Louisville, organized in 1837.

impractical pedant; a sagaciously wise man is a tower of strength.

As to humanity, one would suppose that it would be a predominant quality in a physician, and generally it is, but there are physicians so brutal and rough that, as someone says, an indictment for assault and battery would hold against them. My ideal physician is gentle and forbearing, conscious that he has to deal with those whose sensibilities are not covered by their normal integument. A happy disposition and an assuring manner—such is the power of the mind over the body—often does more than the whole pharmacopœia. In a recent medical journal, a writer (and not a sentimental one) says that "the very thought of joyous, grateful, happy children's faces which I have seen repays me for months of labor." Few occupations carry such remuneration. And the spirit of humanity ought to extend to the community. As Dr. Gross says, "the great question of the day is not this operation or that, not ovariotomy or lithotomy, but preventive medicine." Here is a great chance for philanthropy.

Then, as to probity, while I know it it sometimes said that humbug is essential to the successful practice of medicine, I want to say that nowhere ought there to be more truth and reality. "To assume gravity as a mask, and mystery as a domino, to cover a plentiful lack of knowledge," in the words of St. Clair McKelway, "is the mark of quackery." This is the sentiment of the best part of the profession. Quackery may bring, very possibly, the most succsss, if money is to be its measure, but there are other measures of success besides money, even in America. Money is hardly earned at the expense of manhood. No one can begin too young to practice thoroughness, instead of sham and superficiality; truth is a virtue in whose train the other virtues follow, in the display of all of which no one in the community should go beyond the physician.

I do not believe in natural-born generals nor natural-born doctors, who have had no proper training, but I do believe that a successful and valued life has been spent by many a one in the past, who, with but a modicum of science, has supplemented its lack by those large qualities of the head and heart that Hippocrates said are indispensable. They have not necessarily been lives spent in a large place, and very likely the world has never perused their printed pages nor been conscious of their existence.

It is quite likely that some rural hamlet has been so favored as to enjoy a generation of such a life.

Those of the class who purpose to settle in a place of not less than 96,000 inhabitants will hold such sentiments, doubtless, as these which Dr. Holmes has put into the mouth of one of his characters in "Elsie Venner": "Oh, yes! country doctor—half a dollar a visit—ride, ride, ride, all day—get up at night and harness your own horse—ride again ten miles in a snow storm—shake powders out of two vials—(pulv. glycyrrhiz., pulv. gum acac. $\bar{a}\bar{a}$ part. equales)—ride back again, if you don't happen to get stuck in a snow drift — no home, no peace, no continuous meals, no unbroken sleep, no Sunday, no holiday, no social intercourse, but one eternal jog, jog, jog in a sulky, till you feel like the memory of an Indian who has been buried in a sitting posture, and was dug up a hundred years afterward."

This is only a half picture. It should be offset by the pleasures of the summer, when the roadside is aglow with flowers and redolent with sweet odors and pulsing with all the sounds of nature. What opportunities for reflection the long rides afford. Some of the most sagacious physicians I have ever met have been country practitioners. Then, in his own circumference how large his influence, how autocratic may be his power, with no rival to dispute his sway. What opportunities for good are before him to the individual, the family and the community. If he is true to all the possibilities of his place, he will be the most fully trusted, the most heartily loved man in the community, and when he passes away his memory is treasured by the generation that lives after him. Ideals are seldom realized, but it is always good to keep alive the ideal. In our profession no one holds so lowly a place but that he may aspire to its truest reward, and none so exalted but that he may be humbly grateful if he has attained them all. It is an aspiration for any man to worthily win and worthily wear the ancient and honorable name of Physician.

JOSH BILLINGS wrote: "When a man comes to me for advice, I find out the kind of advice he wants, and I give it to him; this satisfies him that he and I are two az smart men az there is living."

OBSERVATIONS ON DIPHTHERIA.*

Annual Address of the President of the Medical Society of the County of Albany.

BY B. U. STEENBERG, M.D., ALBANY.
(Albany Medical College, 1870.)

If there be a clause in our by-laws which I would have amended, it is that one which imposes upon me at this time the duty of addressing you upon some topic of medical interest. Unaccustomed as I am to such duties, you will be generous in your criticisms if I fail to entertain you, realizing, as has often been said to me during the past year while soliciting papers for the society, that "it is almost impossible to present any thing new in medicine." But this does not imply that there is no progress being made in our science. On the contrary, it is developing by greater strides at the present time, perhaps, than ever before; and since we of to-day are "heirs of all the ages in the foremost files of time," we also owe to the present and the future an advance upon that which we have received.

But, again, if all make this excuse, it is plain how soon progress will cease. It is gratifying to state that we have made progress in some directions during the past year. We have had a greater number of meetings than has been usual, which have been fairly well attended. The papers presented have been interesting and valuable, and have evidenced care and enthusiasm in their preparation.

This being probably the oldest incorporated society in the state, located as it is among thoroughly equipped hospitals and under the eaves of one of the oldest and best of medical schools, much may justly be expected of it. Indeed these are conditions which afford every opportunity for the observation and study of disease, both from a medical and surgical standpoint; yet it has been a noticeable fact that not a single pathological specimen has been presented at any of the meetings, a circumstance which has rendered our pathological committee simply ornamental. Let us not forget that a very ordinary specimen may be of untold value to some of our younger members.

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*Delivered at the annual meeting of the Medical Society of the County of Albany, Tuesday afternoon, October 12, 1886.

The work of our society can be of such a character as to give it high rank among kindred associations. If it does not attain to this worthy position, it must be wholly the result of inactivity.

We cannot expect always to listen to new subjects. The discussion of old and familiar topics will sometimes develop facts and ideas of great value which would otherwise have remained unrecorded. There is no subject in our science so thoroughly analyzed that it may not still conceal unillumined mysteries.

Let us, then, be still more faithful in our attentions and assiduous in our efforts for its constant advancement.

As we are about to enter upon another year we shall find new names upon our list of membership, and as we glance along the column we shall miss the familiar names of Shiland, Snow, Riley, Wade, Fowler, Vander Poel, March and Moore. Sad thought that these shall meet with us no more. Their labors ended when we thought them best fitted to continue; but that Providence which ordaineth wisely hath called them to a nobler work perhaps, in that great beyond from which there is no returning. Let us emulate what in them was best and noblest, and let their loss stimulate us to more vigorous efforts and earnest purposes.

The subject to which I shall ask your brief attention is not selected because of its rarity, but more especially that it is so common, and that the mere announcement by the physician that his little patient has diphtheria conveys a degree of anxiety and terror to the parent which is not usual at the mention of scarcely any other disease. I shall speak only as my experience with it in a certain locality shall dictate.

On the afternoon of July 31, 1885, being in the neighborhood, I was asked to see a little girl aged eight years, who had been suffering all day from a very sore throat. I found, indeed, the throat very much inflamed and swollen, the glands of the neck already enlarged, high fever and pulse, and the child, in fact, suffering intensely, though at this time no deposit was apparent. I informed the mother that her child undoubtedly had diphtheria. After prescribing and promising to return as early as possible in the morning, I left an anxious and even terrorized household. On my return, however, I was told that my medicines had failed to cure the child, and that they were obliged to call another doctor. Within two days my successor had been succeeded and another and another and even myself again summoned. I could not, however, respond. The child died.

I mention this case in this manner to illustrate how frantic parents become in the presence of diphtheria among their household, which is by no means a slight obstacle to the successful treatment of the disease.

Just twenty-eight days from the time I saw this case, a playmate, a boy of the same age living directly opposite, came down with it. He had been hydrocephalic from infancy, though for a year or two past was apparently overcoming the difficulty. He, however, succumbed on the fourth day, and was buried within thirty-six hours after death.

There were three other children in this family, who were immediately separated from the patient by being placed in another part of the house, and on no occasion did they see the patient, nor were they allowed in the room until after thorough fumigation.

September 10th, a twin sister of the boy complained of her throat slightly, was listless and disinclined to play, etc. I immediately saw her, and found the throat much inflamed and swollen, and the characteristic deposit already there in abundance.

The next day, September 11th, a sister, thirteen years of age, came down with it; also on the evening of the 15th, a babe aged two years gave undoubted evidence of its existence, and died on the evening of the 17th.

I may state that these three younger cases were of the most malignant type I have ever seen, the entire nasal cavities being invaded in each instance.

The treatment adopted in the case of the boy and babe was absolutely without the slightest benefit — quinine and iron internally, with whiskey, milk and all the other nourishment that could be taken, penciling the throats with tr. iron, lime water and carbolic acid spray, etc., etc. That of the twin sister and the older one was more gratifying, though the twin ultimately died. These were treated with whiskey, milk and the meat broths, all they would take, which was not inconsiderable in amount. The throats were gargled and sprayed with a solution of bichloride of mercury (one-half to one grain, carefully dissolved in an ordinary goblet of water) every hour, if possible. The nasal cavities were thoroughly washed with a similar solution every two hours by the aid of a syringe and camel's-hair pencil. They were also allowed to swallow a teaspoonful of the solution every second time of gargling. The younger of the two, which was of the most malignant type, recovered from the throat symptoms entirely. The deposit, the inflammation of the throat and induration of the glands all subsided, the nasal discharge ceased, and a healthy condition assumed, though there was marked anæmia. It really looked as though I would be able to announce a recovery from the most malignant attack I had ever seen. But just at this point she began to decline all food and medication. Paralysis of the muscles of deglutition and of the vocal organs supervened, and on the 27th she died from pure exhaustion.

These cases occurred in the northwest suburbs of our city, upon light, sandy soil, on a street ungraded and unfurnished with city water and sewers. The water supply is from wells twelve to fifteen feet deep. The waste and refuse from these houses is emptied upon the surface, and in many instances alongside the wells. In one instance the waste from six families is emptied and drains into a sort of cesspool about twenty-five to thirty feet from the well from which they are supplied. There were also three privy vaults very near by, originally four to six feet deep, but which were from half to three-quarters filled.

These facts obtained, and the fact that my patients received their water from this well, led me to investigate as to its character. To the eye it was clear as crystal. Dr. Tucker kindly received a sample, and from a partial analysis was convinced of its very unsanitary qualities. He also treated samples from all the wells in this locality with similar results, all containing a large percentage of chlorine, free ammonia, etc., etc.

On the opposite side of the street, where the first case mentioned occurred, the same method of disposing of the house refuse maintains; and, in addition, a circle whose diameter shall be from thirty-five to forty feet will enclose three privies and two wells whose waters are the only supply to several families. They are about the same depth as those above mentioned. Each of these wells has a privy vault, half or more filled with a semifluid matter, not to exceed eight or ten feet distant.

An interesting fact in connection with these cases is that these three children—that is, the case of the little girl first mentioned and the twins—were constant associates, playing together all the day long, their favorite playgrounds being at either of these wells. They were known to have drank large quantities of water and played almost continually in it during the whole summer.

These were all the cases in this locality which came under my care, though I am aware that the disease continued here for several months later.

The mother of my patients has suffered from diarrhœa ever since removing to this locality, except when she uses the city water for a week or two at a time, which she obtains by sending a block or more away for it. This being very inconvenient is only resorted to occasionally and in extreme necessity, but always with the same result—relief from the diarrhœa.

It is also interesting to note that the surplus of waste from these families not required for the tincturing of these wells trickles down through a ravine and finds its way into one of the city reservoirs which supplies a certain locality of the city direct —with what deadly effect who can tell?

If it be true that diphtheria is filth-born, here certainly are conditions which favor its propagation to any extravagant degree. I have only spoken of this one locality, but there are others in our outskirts equally appalling.

Who can estimate the influence of these districts upon the general health of a city?

The medical profession are becoming champions of hygiene and sanitation, self-charged with the duty of investigating as to the causes of disease and developing means and conditions for their prevention.

What can be done to improve the sanitary conditions here existing?

I believe the first and most important thing is to furnish these localities with a generous amount of water from the general city supply, and with good and sufficient sewers. The health board can then enforce other necessities as they are required.

I am aware that this is easier prescribed than accomplished. We shall find most formidable opposition among the very families whom we would benefit, to speak not of that more obstinate opponent, an economical city administration.

But let this not discourage us. Let it be our duty to keep this subject before the people, and legislators if need be, until they are fully educated to the necessities indicated. Then shall these localities be washed out, and a perfect sewage and water system shall become an indispensable requirement in every new street before it can be inhabited.

When these things are accomplished, is it too much to expect that, although diphtheria may not be entirely stamped out, it will be greatly reduced in frequency and modified in its malignancy?

And now, gentlemen, as I surrender the trust which you confided to me one year ago to day, permit me to thank you for your kind efforts and support, which have made it a page in my life to which I can always turn with pleasant recollections. And as I withdraw from these responsibilities, I can but express my most sincere wish for the continued prosperity and usefulness of the society.

ABDOMINAL CYST—PAIN SIMULATING SCIATIC NEURALGIA.

BY W. B. MELICK, A.B., M.D., FORT EDWARD, N. Y.
(Albany Medical College, 1884.)

[FOR ALBANY MEDICAL ANNALS.]

In July, 1886, Mr. M., aged 56, married, came to my office, giving the following history: Has always worked hard, and has always enjoyed good health. Some time during last spring, without any known cause, he was seized with severe pain in his right hip. This pain was constant, and at first was affected neither by posture nor by exertion, but in a short time patient noticed that when he walked or lay on his back the pain was greatly increased in severity, while, on the other hand, when he would lie on his abdomen the pain would cease. During the next month the pain, which before this had been confined to his right hip, was felt along the back of thigh and around right knee and ankle. Patient had noticed a mass in his abdomen, and had also noticed the peculiarity that when he would push it upwards the pain was relieved. Complained of no disturbance of digestion, bowels had been regular and stools of normal color; had had no difficulty in urinating, and urine apparently was healthy.

Examination of right hip and leg revealed no swelling nor deformity, but tenderness was present along whole course of sciatic nerve, especially well marked just inside the greater trochanter, at head of fibula and behind inner and outer malleoli. On examination of abdomen, a freely movable, fluctuating tumor could be felt in right hypochondriac region. This tumor was about the size of a large orange, extending below the free border of the ribs and apparently distinct from the liver. The hand could be pushed down between the liver and the tumor, and the liver was freely movable on deep inspiration. Liver dullness was normal in extent. Percussion over tumor gave a rather high-pitched tympanitic note, which, in all probability, was transmitted from the intestines.

The patient having entered St. Peter's Hospital, Albany, N. Y., at my suggestion, upon consultation by the staff, doubt still being entertained as to contents of sac, it was decided to aspirate. Ten ounces of a clear yellow fluid were withdrawn. Examination of this fluid showed a specific gravity of 1010, an alkaline reaction, about two per cent. of albumen (which was precipitated by alcohol, by nitric acid, by heat, by citric acid and by ferro-cyanide of potassium) and some chlorides. No succinic acid nor sugar was present, although boiling with liquor potassæ and sulphate of copper gave a brown-colored precipitate. Microscopical examination showed only a large quantity of fat globules. No hooklets could be discovered.

Two days after operation patient felt perfectly well, and no trace of tumor could be found either upon palpation or percussion.

September 15—Patient has continued well. Examination of abdomen negative. There has been no return of pain in right hip, and there is no tenderness in any part of the sciatic nerve.

The unusual feature of this case is the single symptom presented, nothing but pain in right hip and leg being complained of, which pain was dependent, apparently, upon an abdominal cyst, and which ceased when the cyst was aspirated.

As to the exact nature of the cyst, there must be some doubt. The absence of hooklets, fragments of scolices and succinic acid, together with the presence of albumen, renders it certain it was not an ecchinococcus either of the liver, kidney or omentum. In dropsy of the gall bladder from obstruction in the hepatic or common duct, there are presented symptoms so characteristic that there can be no doubt as to the absence of this lesion.

The only disease in this region which could present a tumor without any rational or characteristic symptoms accompanying its formation would be dropsy of the gall bladder from obstruction of the cystic duct. We know that in these cases the mucous membrane of the gall bladder, instead of taking on a catarrhal state leading to suppuration, may pour out serum abundantly, the biliary contents and mucus may be absorbed, and the gall bladder may finally be distended by a serous fluid. The fact, however, that in the vast majority of these cases there has been some time a disturbance of the hepatic functions, or that pain has been present referable to the hepatic region, together with the position of the cyst in this case, would still cause doubt as to this being the true origin of the tumor.

Although tumors of the kidney, as is well known, present the important distinction that they are situated behind the peritoneum, and consequently behind the intestines, so that the surface of a renal tumor is likely to be crossed by a more or less extensive area of percussion resonance; and, although the tumor here presented gave, as was said, a rather high-pitched tympanitic note, yet the fact that an ordinary cystic kidney is most likely to be connected with chronic diffuse interstitial nephritis, which is accompanied by the usual symptoms, together with the character of the fluid aspirated (no urine or solid-looking bodies, with concentric and radiating striations being found), would occlude this disease, as the history of a hydro-nephritis would occlude that.

In all probability this tumor was a simple cyst attached by a pedicle merely to some of the organ in right hypochondriac region.

As to the exact cause of the pain, doubt also can only be expressed, though the fact of the pain ceasing when patient would lie prone would suggest that of pressure, while pain being present on standing would suggest possible dragging of the cyst upon its attachment.

Bromides.—Bromide of sodium may be substituted for common salt for table use in cases of headache, or even in epilepsy and other diseases requiring the constant use of the bromides.—*Indiana Pharmacist.*

ABSTRACTA.

INFLUENCE OF GLYCEROL, SUGAR AND FAT ON THE SECRETION OF URIC ACID IN MAN.—By J. Horbaczewski and F. Kanera. A series of experiments were conducted on one of the authors during a period of seventy days, when the daily rations and mode of living were the same, with the exception of periods during which varying daily amounts of glycerol, sugar and fat, respectively, were taken in addition to the normal food. For full details of the quality and quantity of food consumed, and detailed analyses of the excreta, the original paper must be consulted (*Monatshrifs Chem.*, 7, 105–120).

The general results were: When glycerol is taken with the daily food, a marked increase in the amount of uric acid secreted takes place; this, however, is the case only when free glycerol is taken; if it is taken combined with the fatty acids, as neutral fats, it exerts no influence on the formation of uric acid. Cane sugar, and probably other carbohydrates, exert no direct influence on the formation of uric acid; it causes, however, a marked decrease of the secreted uric acid, due to the "albumin-retarding" action of the carbohydrates, and proportional to it this lowered secretion only continues as long as cane sugar is taken. With the stoppage of the sugar, the normal uric acid formation does not again take place, but the entire amount of acid which was not secreted in consequence of the sugar is first passed, and then the normal quantity begins. The neutral fats have a similar influence on the formation of uric acid to that of carbohydrates, but the after effects are different. The decrease in the amount of acid is proportional to the "albumin-retarding" action of the fat; but when the addition of fat to the diet is stopped, the secretion of uric acid returns to the normal amount. Glycerol causes an increase in the amount of albumin formed in man, as it was known to do in the dog.

The authors consider that their results have an important bearing on the question of suitable diet for persons suffering from certain diseases which cause too large a secretion of uric acid.—*Contributed by Prof. Maurice Perkins, of Schenectady.*

INTRA-VASCULAR CLOTTING.—By L. C. Wooldridge. From the testis and thymus gland of the calf the author has obtained a substance of proteid character, the injection of which in sufficient quantity into the veins of an animal causes instant death, due to wide-spreading intra-vascular clotting. The method of extraction of this substance is as follows: The organ, finely minced, is allowed to stand for some hours with distilled water; the liquid is strained off and subjected to the action of a centrifugal machine so long as any deposit is separated from it; the addition of acetic acid to the clear liquid produces a bulky precipitate. If this is dissolved in alkaline salt solution and injected into the circulation, it instantly produces intra-vascular clotting. Experiments are quoted to show that the material which produces the coagulation disappears in the act. Previously no method had been known by which a complete fibrous coagulation in the vessels of a living animal could be produced at will. — *Contributed by Prof. Perkins.*

Life-Currents Stocked with Parasites.—One of the great facts of the outer world is the perpetual circulation of water, and the absolute dependence upon it of every living thing. This water passes up from the vast invisible ocean below to the vaster invisible ocean above, thence down in showers and back in rivers, brooks and rills to whence it came. So the whole animate world is equally dependent on an analogous circulation of blood from the heart, through large streams and microscopic, to every point of the body, and back again to the ever-heaving heart through similar streams and rills. This blood is the water of life to the body, containing within itself, in due proportion, all the elements of the latter for its upbuilding, with power to rid itself of all waste matter and renew itself perpetually. Yet, as the ocean and rivers support a life of their own in the fishes that swarm them, and the plants that grow on their beds, so, in some sort, it is with the circulating vital fluid. Countless microscopic plants live, multiply and die within its endless succession, without disturbing the health of the body; while others may, from time to time, gain admittance, bringing disease with them. Even the former, it is now believed, may lose their harmless character in certain morbid changes of the blood. The great life currents may also become "stocked"—as we say of rivers and lakes—with microscopic animals.

Says Dr. Cobbold, F.R.S.: "There is no class of creatures, from the mollusk upward, in which parasites may not be found in the organs of circulation." True hæmatozoa (blood animals) have been found circulating in the blood of frogs and fishes, and even in the heart of the former. Dr. Manson dissected some thirty to forty magpies, and in every instance found quantities of them. The hearts of cetacea (of the whale species), seals and dogs, are sometimes found stuffed with worms.

One-third of the parish dogs of India are believed to contain hæmatozoa; and so, according to Cobbold, do 90 per cent. of all the adult horses of Europe, and probably every full-grown ass in Great Britain. One-third of the natives of Egypt are similarly affected. Whether the health shall be injured by them depends mainly on their number, and the general condition of of the health otherwise.

It is a singular fact that some of these hæmatozoa live in the circulating blood during waking hours and retire to the tissues during sleep.—*Youth's Companion.*

A Story of a Red Blood Corpuscle.—The *Rutland Herald* gives the following school composition, which was written by a little Vermont girl twelve years old. It is said to be given just as it was written, without correction. She was only half an hour in writing it and had no book of reference. She told her papa, however, that she had thought it well out the night before:

"As I am resting in a piece of tissue to which I was sent, I thought I might as well write my adventures, which are many and varied. I first came to life with many of my relations in a large fleshy room which I came to know was the right ventricle of the heart, then by a sudden squeeze we were sent altogether into a long canal with hard walls (it was the pulmonary artery); there were so many of us that we were all jammed together, and I said to myself, 'I had a great deal rather go back into that nice large room again,' so I ran back as fast as I could, but lo and behold, three little doors barred my way, and the more I pushed the tighter they closed, and so I gave it up and went back to my fellows. We then went on into smaller veins or capillaries, and through thin walls. I could see the spongy substance called the lungs. On we traveled into an immense vein called the pulmonary vein, and from there into a smaller room than the one we were in first; presently another squeeze sent us from the left auricle, as it is called, into the left ventricle, and from there into another large artery called the aorta; just then I and my companions were startled by a telegraphic message from the brain, 'We are busy with a Latin verb and need red blood corpuscles to help us.' About 2,000,000 of us started for the brain, but we had hardly got half way before there came a despatch from the arms, 'We have been swinging clubs and have used a great deal of tissue. Come and help us.' Half of us went on to the brain while the others went to the arm. And here I am expecting to be used at any minute. Ah, here I go! the arm has raised and I must die."

The Size of the Spider's Thread.—I have often compared the size of the thread spun by full-grown spiders with a hair of my beard. For this purpose I placed the thickest part of the hair before the microscope, and from the most accurate judgment I could form, more than a hundred of such threads placed side by side could not equal the diameter of one such hair. If, then, we suppose such a hair to be of a round form, it follows that ten thousand of the threads spun by the full-grown spider, when taken together, will not be equal in substance to the size of a single hair. To this if we add that four hundred young spiders, at the time when they begin to spin their webs, are not larger than a full-grown one, and that each of these minute spiders possesses the same organs as the larger ones, it follows that the exceedingly small threads spun by these little creatures must be still four hundred times slenderer, and consequently that four millions of these minute spiders' threads can not equal in substance the size of a single hair. And if we further consider of how many filaments or parts each of these threads consists, to compose the size we have been computing, we are compelled to cry out, Oh, what incredible minuteness is here, and how little do we know of the work of nature!—*Indiana Pharmacist.*

THE COMING METAL.—It is predicted that aluminum is the coming metal, which is destined to supersede iron. It is the most abundant metal in the earth's crust, and is not exceeded in usefulness. It is the metallic base of mica, feldspar, slate and clay. It is present in gems, colored blue in the sapphire, green in the emerald, yellow in the topaz, red in the ruby, brown in the emery, and so on to the white, gray, blue and black of the slates and clays. It has never been found in a pure state, but is known to exist in combination in nearly two hundred different minerals. Corundum and pure emery are very rich in aluminum, which constitutes about fifty-four per cent. of their substance. The metal is white and next to silver in lustre; it is as light as chalk, or only one-third the weight of iron, or one-fourth that of silver; it is as malleable as gold, as tenacious as iron and harder than steel. It is soft when ductility, fibrous when tenacity, and crystalline when hardness is required. It melts at 1,300° F., or at least 600° below the melting point of iron, and it neither oxidizes in the air nor tarnishes in contact with gases. —*Am. Pharm.*

THE NEGRO, FROM A MEDICAL STANDPOINT.—Dr. T. Tipton, of Selma, Ala., in a carefully-written article published in the *Sanitarian*, gives some valuable facts regarding the negro race in the South. He first shows that their death-rate is over thirty per 1,000—more than double that of their white-skinned rivals. The death-rate among the blacks exceeds the birth-rate. The women usually have some uterine disease, which lessens their productiveness. Among the slaves phthisis was unknown, but now the disease is four times more frequent among the blacks than the whites. Phthisis is now the greatest foe of the negro race. Malarial diseases are rare, and when they do occur are of a very mild type. One-half the male population is syphilitic, but the disease is mild and usually runs its course without treatment. Cancer of the womb is rare; lacerated cervix common. Deafness, insanity, diphtheria and croup are also rare, while hysteria, rheumatism and alcoholism are common. Unless the sanitary condition of the race is soon improved, it is threatened with extinction.—*Buffalo Medical and Surgical Journal.*

NITRATE OF SILVER STAINS.—Dip the fingers into a strong solution of cupric chloride. In about a minute the silver will be converted into chloride, and may then be washed off with hyposulphite of soda solution.—*George R. Underwood, Chemist and Druggist.*

THE QUESTION OF OPERATION IN CARCINOMA OF THE BREAST. —It is the opinion of most writers that carcinoma of the mammary glands is a condition that calls imperatively for operation. There are symptoms of a threatened reaction in the mind of the profession, and it is not beyond the range of possibilities that, not many years hence, operation in cancer of the breast will be as exceptional as non-interference is now.

In the article on "Carcinoma" in the "Reference Handbook of Medical Sciences," edited by Dr. Buck, the author, Dr. Satterthwaite, says that the statistics in a small number of cases would indicate that life is prolonged by operation for an average of more than eleven months, an estimate which he regards as a low one; yet he states that in his cases the growth of the disease was more rapid after removal. Dr. Lemaitre, in a short paper read before the Société de Médicine de la Haute-Vienne (*Journal d'Accouchments*, October 15, 1885), argued strongly against the advisability of an operation, and asserted that the subject of mammary cancer lived longer when the policy of non-interference was followed than when the tumor was removed. Boyer says that the extirpation of a tumor of undoubted cancerous nature should never be undertaken. Morrison believes that the surgeon should consent to operate only upon the urgent solicitation of the patient, and after she has been told of the recurrence of the disease. Velpeau, who regards cancers as primarily a local affection, says that an operation is justifiable only at the very incipiency of the trouble. And, finally, Verneuil has expressed some doubt as to the advisability of amputation of the breast, having observed after operation many cases of pleurisy which he regarded as cancerons in their nature. Lemaitre's plea is that as long as the cancerous disease is allowed to concentrate itself in the breast the internal organs are comparatively safe, but the removal of the mammary glands invites a metastasis to other more vital organs.

The question is one which has not resolved itself into an axiom, and the indications are that it is destined to be the subject of still further discussion before it can be regarded as settled.—*Medical Record.*

BENZOATE OF COCAINE.—Señor Alfredo Bignon, in a paper read before the Lima Academy of Medicine (*La Cronica Mêdica*), recommends *benzoate of cocaine* in preference to the *hydrochlorate* commonly used, and to the *salicylate and borate*, with which he has also made experiments. The *benzoate* is extremely soluble, easily crystallizable, and retains the odor of coca itself. The antiseptic qualities of *benzoic acid* are an additional advantage. The *anæsthetic* effects of a twenty per cent. solution were compared with those of a similar solution of the *hydrochlorate* in a case of epithelioma of the tongue, with the result that the effect of the former salt persisted for a much longer time than that of that of the latter.—*London Lancet.*

Enlarged Prostate.—Dr. F. W. Rockwell: Three drugs are at the present time given, with the belief that they exert a direct influence on the disease—ergot, iodide of potassium and chloride of ammonium. Of the first of these I can speak in terms of confidence. I can see why, on general principles, it should act on the muscular tissues of both bladder and gland. One of my patients, who had an immense posterior and lateral hypertrophy, and who was relieved of his first retention by the smallest catheter I own, after taking pounds of the drug for a year or two, was completely relieved of his symptoms, and that with no instrumental treatment except that necessary to empty his bladder in a few attacks of retention. I watch my patient's general health, instructing him in the daily use of the catheter, where chronic retention exists, and also in irrigating the bladder, if cystitis exists or is threatened; warning him to report any unusual appearance in his urine, watching its reaction and specific gravity from time to time for any indications as to treatment; impressing on him the danger of being placed in circumstances where he cannot empty his bladder at will; also that he shun cold and damp, and protect his skin by suitable flannels worn next it the year through; that he be temperate in diet and drink, and especially as to the quantity and quality of the latter, even with tea or coffee, making his daily consumption proportionate to his experience of his actual need, and warning him that any excess of fluid in his bladder will not be tolerated as in youth; and, lastly, I endeavor to have him acquire regular habits as to the time of passing water, especially if he has to irrigate or artificially empty the organ. Strict observance of these rules makes the life of sufferers from even advanced prostatic disease tolerable—in many cases comfortable.—*N. Y. Med. Jour.*

Carbolic Acid Anæsthesia.—Dr. McNeill (*Edin. Med. Jour.*) describes experiments made on himself to test the anæsthetic action on the skin of carbolic acid. In 1870 this anæsthetic power was observed by Dr. Bill, of New York, and by Dr. Erasmus Wilson.

Dr. McNeill has found vaseline unsuitable as a solvent for carbolic acid. 40 per cent. of carbolic acid in olive oil has no anæethetic action. A 50 per cent. solution acts slightly. A 60 per cent. mixture in olive oil acts rapidly, causing a feeling of local heat. The doctor cut through the skin to the depth of from one-eighth to one-quarter of an inch without producing pain. The glycerine solution of the same strength was not quite so active, but the 80 per cent. solution gave similar results. In connection with the glycerine application and the kind of acid best adapted for local anæsthesia, it is stated that absolute phenol appeared to be weaker than the pure crystals. Dr. McNeill, thinking from this that glycerine might take away the irritation of the acid when mixed with olive oil, experimented in this direction, and when the feeling of heat appeared at its height, and the white corrosive appearance was produced, he applied glycerine to the part; it almost at once stopped the heat, and the corrosion soon disappeared, while the patient remained insensible to pain. On repeating the experiment several times, it was found that if the glycerine was applied before the whitish appearance was fully developed it took away the feeling of heat and corrosion, but at the same time prevented analgesia from being fully developed. If, however, the corrosive action was well marked, the analgesia continued for some time afterwards. The feeling of heat was slight and transitory, but the corrosion was more marked, and liable to end in suppuration. Glycerine prevented this.

Tape Worm Treatment.—Give the remedy to the patient fasting, and the man, not the worm, gets the effect of the vermifuge. If you give the remedy an hour or two after a full meal, just as the digested food is passing from the stomach, it is not so liable to be injured by digestion, but passes with the digested food along the length of the intestines, and the worm is bathed with it and absorbs it through its joints. The head anchors the worm, but does not materially nourish it.—*W. C. Bennett, M.D., Danbury, Conn., N. E. Med. Monthly.*

Tonsilitis.—Dr. John Brown (*Brit. Med. Jour.*):

℞	Sodii salicyl	ʒ iss
	Pot. bicarb	ʒ iss
	Tinct. aconiti	mxl
	Liq. opii sedat	mxxx
	Spts. chloroformi	ʒ ij
	Aquæ	q. s. ad ℥ viij

M.—Sig. One ounce every two or three hours for the first thirty-six hours. The same for rheumatic fever.

Chronic Coryza.—

℞	Sodii salicyl	℥ ij
	Sodii bibor	℥ iij
	Glycerinæ	℥ ss
	Aquæ	℥ vj

M.—Sig. Of the above take ℥ ij and put into Oj warm water (100° F.). Of this latter solution "snuff" into nostrils as much as can be taken up in the hollow of the hand, three times a day. —*Dr. Sajous, Col. and Clin. Rec.*

Plants do not always contain their characteristic alkaloids when grown under other than natural conditions. Hemlock does not yield coniine in Scotland, and cinchona plants are nearly free from quinine when grown in hothouses. Tannin is found in the greatest quantity in trees which have had a full supply of direct sunlight.—*Prof. A. Vogel.*

Alcohol does not destroy its victims, in most cases, suddenly, as in the dead sleep of profound intoxication or in the wild maniacal ravings of delirium tremens. By slow and measured steps, in most cases by inducing cirrhosis of the liver, Bright's disease of the kidneys, anasarca, ascites, rheumatism, rheumatic gout, defective vision, fatty degeneration of the heart, arteries and muscular system, which finally end in paralysis, imbecility and insanity, alcohol encircles its victims in irremediable and everlasting ruin. Without doubt alcohol occasions a vast amount of disease over the face of this mighty republic, and carries death, destruction, dishonor and shame into thousands of happy homes. Alcohol is at the bottom of a large proportion of the crimes committed in the United States. Alcohol dethrones reason and poisons the fountains of sentiment and morals, and is even more destructive upon the moral and intellectual nature than upon the physical organism of man.—*N. Y. Pharmaceutical Record.*

Iodol is a powerful antiseptic having anæsthetic action and promoting granulation of wounds. It is soluble in alcohol, chloroform, ether, and slightly in olive oil. It contains nearly ninety per cent. of iodine, and is free from the disagreeable odor which characterizes iodoform. It is used for specific and other ulcerations in which there is no tendency to gangrene. Buboes may be cured by the injection of a solution of one part of iodol to sixteen of alcohol and thirty-four of pure glycerine. It is the coming dressing for wounds.—*Pacific Rec. Med. and Pharm.*

Felon.—W. H. Halbert, M.D., Lebanon, Tenn.: Apply salt saturated with turpentine. Let this remain on the finger for several days, moistening the salt twice a day with the oil of turpentine. In the forming stage of a felon, wrap the finger, commencing at the tip and extending a little above the felon, close and tight, with surgeons silk isinglass plaster, and then apply the salt and turpentine. Let the wrapping remain on two or three days.—*Ga. Eclectic Medical Journal.*

Lumbago — Instantaneous Remedy.— Prof. Burggraeve: Collodion, tincture of iodine, liquid ammonia, equal parts. To be applied widely over the parts with a camel's-hair brush. This applies to accidental or *a frigore* lumbago or to rheumatic pain produced by a strain or muscular exertion.—*Canada Prac.*

Conium for Sleeplessnes.—Drachm doses of fluid extract of conium allay and often cure sleeplessness, and are useful in chorea, spasm of paralyzed limbs, and general irritation.—*Med. World.*

Nævus.—Dr. W. J. Beatty (*Brit. Med. Jour.*) has cured eight cases of nævus, perfectly and painlessly, by painting the affected spot night and morning with liquor arsenicalis until ulceration took place. A cure is effected in from three to five weeks.

ALBANY MEDICAL ANNALS:

A Journal of the Medical Society of the County of Albany

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Vol. VII. OCTOBER, 1886. No. 10.

BOOK NOTICES.

THE REFRACTION AND ACCOMMODATION OF THE EYE. E. Landolt, M.D. Translated by C. M. Culver, M.A., M.D., formerly clinical assistant to the author. Edinburgh: Young J. Pentland. Philadelphia: J. B. Lippincott Co.

This is a work which is destined to become a classic in ophthalmological literature. Dr. Landolt has no pet theories to advocate, and in this book he puts into our hands simply a well-digested resumé of all that is best known of the subjects under consideration.

The work is divided into three portions, viz., Physical, Theoretical and Clinical. The physical part treats of the refraction of light, lenses, etc., from a mathematical standpoint, and furnishes all the knowledge on these subjects that the practitioner needs for his work. The second portion treats of the eye proper, and is entirely distinct from the first chapter. This part of the work, as the author says in his preface, can be understandingly read without a knowledge of the previous and more mathematical chapter. The formulæ and mathematical expressions in these chapters, however, do not bear out the statement in the preface that no formulæ will be found in and after the second chapter. Specially worthy of mention in these chapters are the sections on the "Amplitude of Accommodation." The important relations, too, between the accommodative act and convergence are thoroughly detailed. The so-called metre-angle of Nagel is adopted and amplified by the author as a uniform method of both measuring and recording convergence.

The "busy practitioner" who turns hopefully to the clinical portion of this book in pursuit of "something good for sore eyes" will be grievously disappointed. Even torpor of the liver and malaria are unmentioned as etiological factors in eye lesions. Hyperopia, myopia, aphakia, etc., are treated of in a masterly manner. Strabismus and the approved methods of managing this anomaly are fully described.

Dr. Landolt is conservative in his methods, and many of his ideas in respect to treatment will be criticized by some American practitioners, at least. He tells us, for instance, that glasses should not be given unless rendered necessary by the subjective symptoms of the patient; that atropia is rarely found necessary in his hands for the determination of astigmatism. He also speaks encouragingly of methods for the cure of strabismus without resort to surgical measures.

The work, on the whole, is a valuable contribution to the literature of our profession, and is one of the many indications that medicine is more nearly approaching a scientific basis.

The translator has done his work well, and has succeeded in producing a medical book in idiomatic English. On taking up a well-known medical book—a translation—one is astounded to find that the ophthalmoscope was *discovered.* Such blemishes cannot be found in the work under consideration.

It is worthy of remark that this English edition is not a mere translation of the French, but that much has been prepared by the author specially for this edition.

The paper, typography, chromo-lithographs, engravings, aud freedom from typographical errors, are models for the bookmaker. Both Dr. Landolt and Dr. Culver are to be congratulated as well upon the subject-matter of the book as upon its beautiful appearance. FEATHERSTONHAUGH.

RHEUMATISM: ITS NATURE, ITS PATHOLOGY, AND ITS SUCCESSFUL TREATMENT. By T. J. Maclagan, M.D., London. Octavo, 285 pp., illustrated. Supplied only to subscribers for "Wood's Library of Standard Medical Authors," for 1886 (consisting of 12 vols., price $15.00), of which this is Vol. IX. New York: William Wood & Company.

Dr. Maclagan is the man who in March, 1876, introduced salicin to the profession as a remedy in acute rheumatism. At that time he claimed that rheumatism, like intermittent fever, was of malarial origin, and he compared the action of salicyl compounds in acute rheumatism with that of quinine in ague. This book is a fuller exposition of the same philosophic view.

The topics include the Varieties, Symptoms, Duration, Seat and Nature of Rheumatism; the Nature of the Rheumatic Poison; the Lactic Acid Theory and the Miasmatic Theory of Rheumatism; the Nature and Mode of Action of Malaria; Rheumatism of the Loco-motor Apparatus and of the Vasculo-Motor Apparatus; Endo-, Peri-, and Myo-Carditis; the Treatment of Loco-Motor Rheumatism; the Mode of Action of Salicyl Compounds; the Treatment of Vasculo-Motor Rheumatism; Rheumatism and Chorea; and Rheumatic Hyperexia.

A Laboratory Guide in Urinalysis and Toxicology. By R. A. Witthaus, A.M., M.D., Professor of Chemistry and Physics in Medical Department of the University of the City of New York, etc., etc. New York: William Wood & Company, 57 and 58 Lafayette Place. 1886.

There are from seventy-five to eighty leaves, printed on one side only; the paper is of good quality for ink-writing on the blank sides.

The distinguished author has already made his mark in the medical and in the scientific world by more voluminous works than this. But this "guide," though necessarily brief, is, in its line, of great value, especially for students' use. The omission to mention the presence of spores of torulæ in diabetic urine, and to mention the approximate quantitative estimation of sugar from the difference between the specific gravity of the urine fermented with yeast and of that not so fermented; the omission of Maréchal's test with iodine for bile pigment, the only test which in some cases, in Eichhorst's experience, gave positive results; the omission of Dr. G. Oliver's method of quantitative estimation of albumin by potassio-mercuric iodide—these omissions would be made up in an average medical college lecture course, and do not spoil the book, which would be extremely useful in the hands of every medical student.

The part on Toxicology treats of Volatile Poisons, Mineral Acids and Alkalies, Metallic Poisons and Vegetable Poisons; the tests are conveniently grouped, and antidotes are named.

Prof. Witthaus' admiration for the French metric system is evident; fortunately such admiration does not possess the whole American people. L. H.

How to Strengthen the Memory; or, Natural and Scientific Methods of Never Forgetting. By M. L. Holbrook, M.D. 152 pp., 12mo, $1.00. New York: M. L. Holbrook & Co.

The author of this book believes that the memory can be strengthened so as to be many times stronger than it would be without culture. There are chapters on The Memory of the Aged; Memory of Names and Localities; Musical Memory; Culture of Memory in Schools; Lawyers' and Clergymen's Memory; Relation of Health to Memory; Best Methods of Cultivating the Memory for Words; and the author has extracted from Prof. Edward Pick's book, long out of print, the chapter on How to Learn a New Language. The work is very entertaining, and may be commended to all classes of persons.

EXCHANGES, PAMPHLETS, ETC.

"Surgical Lesions of the Brain and its Envelopes." A lecture at the College of Physicians and Surgeons, Chicago, Ill., by Nicholas Senn, M.D., of Milwaukee, Professor of Surgery in the college.

"Some Recent Experiences in Clinical Surgery." By Donald Maclean, M.D., Detroit. From Transactions of Michigan State Medical Society.

"Amputation at Hip-Joint for Morbus Coxæ." By Donald Maclean, M.D., Detroit. Read before the American Medical Associacion.

"Bromidia in Insomnia." An account by Dr. George Springer, Van Buren, O., of failure to produce sleep by a spurious article named Bromidia, and of the successful use in the same patient of genuine Bromidia from Battle & Co., St. Louis.

"Lactated Food in Diabetes Mellitus," etc.

"Operations on the Drum-Head for Impaired Hearing; with Fourteen Cases." Seth S. Bishop, M.D., Chicago From *Journal of American Medical Association.*

"Cocaine in Hay Fever." Seth S. Bishop, M.D., Chicago. From *Journal of American Medical Association.*

Personal.—Dr. F. R. Greene ('84), of Albany, was maaried October 6, 1886, to Miss Lizzie Blackburn, daughter of Mr. Thomas R. Blackburn, of No. 1 Martin avenue, West Albany.

The class of '88 of the Albany Medical College have elected the following officers: President, A. L. George; vice-president, B. L. Goldthwait; secretary, Grosvenor W. Barry; treasurer, George C. Lempe; historian, Rudolph Bestte; chaplain, Samuel Newcombe; marshal, F. Townsend Staimard; executive committee, W. H. Fox, F. R. Boundage, J. W. Quinlan and E. A. Ludden.

ALBANY

MEDICAL ANNALS:

A Journal of the Medical Society of the County of Albany.

Vol. VII. NOVEMBER, 1886. No. 11.

POPULAR HINTS IN HYGIENE.*

REPORT OF THE COMMITTEE ON HYGIENE AND THE RELATIONS OF THE PROFESSION TO THE PUBLIC.

E. A. BARTLETT, M.D., ALBANY, CHAIRMAN.
(ALBANY MEDICAL COLLEGE, 1879.)

In the absence of any matters directly referred to it for consideration and report, your Committee on Hygiene and the Relations of the Profession to the Public thought it might serve a beneficent end, if it took a rapid survey of the territory in which it is supposed to labor, noted some of the salient features, and furnished the society with the results. Since the principles of hygienic science often lie buried under an accumulation of other knowledge, while they are, nevertheless, familiar to you all, the statement of facts may become simply a repetition of well-known truths. But we believe them to be of sufficient importance to bear the repetition.

Recognizing the various influences that, flowing from physical causes, operate upon man's intellectual and moral life, the influence of surroundings upon the physical and moral nature of individuals, our attention is at once arrested by the conditions surrounding that great mass of our population, the working people. A glance through our workshops shows us men and women suffering from the inhalation of insoluble dust, from the absorption of poisons, and from confinement in poorly heated and more poorly ventilated rooms. They all speak the same language, and call to the sanitarian for relief. While we may not leave the bed-ridden invalid to the tender mercy of nature and betake ourselves to the invention of means to prevent the evils mentioned, we, nevertheless, have a duty to perform, and it lies in the direction of moral suasion. Having clearly defined, to employer and employé, the nature of the evil and the danger consequent upon its existence, we may impress them with the fact that there is no scape-offering for physiological sin, but that suffering and diminished power are its direct and inevitable consequences. Thus we shall stimulate them to such inquiry as would lead to exact knowledge, rigid care and correct practice. Self-preservation and self-interest, which it is impossible to despise, would tend directly to this result.

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* Read before the Medical Society of the County of Albany, at the annual meeting, Tuesday afternoon, October 12, 1886.

But it is not alone in the workshop, factory and store that we find evils existing. Follow these people as they go from their labors and see the wretched hovels many of them designate by the sacred term—home. In the low-ceiled, illy-ventilated rooms of many of the tenement houses of our city, lie hidden the germs of a pestilence. The sodden floors and walls reek with filth; the sunlight never penetrates to them, and out from them come human beings of all ages and both sexes, corrupt not only in body, but in mind and soul as well. The homes for these people, instead of being placed in the poorest part of the city, should, as far as practicable, be built in the less thickly populated portion, that they may have plenty of sunlight and pure air. The remedy for damp walls is foundations of stone laid in cement. The outside walls of the building should be hollow and lined with furring from the bottom to the top. There should be an iron drain four inches in diameter, with joints perfectly tight and a fall of one foot in sixty feet to the sewer. The discharge pipes from water-closets, sinks, wash-tubs and basins should be trapped, and when there is an overflow it should enter the discharge pipe above the trap. The soil pipe should be of iron, not, as has been found in some houses, of *tin* or other light metal. Water should be on each floor; water-closets should have direct communication with the outside air, and it is safer to have, in the sleeping rooms, no connection with the drain. The drain should be connected with the sewer through a competent trap and be thoroughly ventilated. The whole of the plumbing should be accessible without the necessity of removing sections of the plastering or tearing up floors. The basement of a tenement houses should never be used for "living rooms." It should be rendered thoroughly dry, well ventilated, kept clean and used for a cellar. Such houses our working people ought to have; the moral purity of society requires this, the health of the community demands it.

Another of the conditions by which the working class is environed is found in the character and quality of their food. Not one-quarter of them know what is best for them in this regard, and more than half of them care less. They need to be taught, in the first place, that economy in household expenses is not a thing to be ashamed of, and, furthermore, that economical living is not necessarily poor living. The cheaper cuts of sound meat stewed soft are more wholesome than high-priced steaks toughened and spoiled by frying. The large quantity of pork consumed by many, to the exclusion of other kinds of meat, ought to be remonstrated against. The use of cornmeal, oatmeal and barley flour, in preference to the superfine wheat flour, ought to be encouraged. Among vegetables, the common white bean is perhaps as nutritious as any, but how often we find poor families, as well as those in better circumstances, refusing to use it. As regards drink, coffee, tea and milk fulfill the requirements. The idea that beer is necessary, either at meal times or during working hours, is believed to be a fallacy. For the support and refreshment of working-men during their hours of labor, skimmed milk, butter-milk and gruels made of corn- or oatmeal, either cooked or raw, subserve the purpose more beneficently.

In view of the conditions we find among this class of our people, we find ourselves almost unconsciously determining what shall be done to prevent the spread of diseases we know must be lurking here, and the point of most importance we believe to be, "make things clean." Typhoid fever will not thrive in a clean place; neither will cholera, diphtheria and scarlet fever find in filth a hot-bed for their germination. We may arrange our advice categorically and furnish every family under our care with a written copy something like this:

"To prevent the spread of disease there must be:

"1st. Cleanliness.

"2d. Avoidance of contagion, especially of measles, scarlet fever, typhus fever, whooping-cough, small-pox, and diphtheria.

"3d. Subsoil drainage.
"4th. Destruction of the infectious principle (disinfection).
"(*a*) For the room.
"(*b*) For the discharges.
"(*c*) For the clothing.
"(*d*) For cesspools and privies.
"5th. Vaccination."

In some such way as this we may hope to check the annual decimation in the ranks of the working people.

There is another question of great importance to large and growing cities. In July, 1886, there were, for the two cities of New York and Brooklyn, nearly 6,000 dead bodies to be disposed of. After the battle of Metz, in 1870, there were 8,400 bodies placed in one pit. Dead bodies were anciently left exposed to the elements and wild beasts. Then they were somewhat protected by being laid on raised platforms. Later they were sealed up in natural caves. This led to artificial tombs and the more simple grave. Complete decay of a body occurs in from five to thirty years, varying with the soil; that favoring the speediest decay is most desirable.

Embalming has nothing to recommend it. Speedy decay is much to be preferred. It grows out of the factitious sentiment for preserving and perpetuating the dead. It can be only exceptionally useful.

Cremation does in an hour what the soil does in years. It has been practiced from the earliest times—on open pyres, which are objectionable because of the length of time required, the smell, and the imperfect destruction of the body. Burning the body obviates all risk of contaminating air or soil. In a sanitary point of view it is far preferable to burial. The sentiment which influences men to protect a dead body will oppose the apparent overt violence of cremation. This is the only obstacle to be met. Probably if cremation had the sanction of usage the proposal of burial as a substitute would seem as revolting.

There is a matter of local interest to which your committee desires to refer, and that is the opening of a park in the southern portion of the city. While we believe it to be desirable that opportunity be afforded the residents of that part of the city to breathe the pure air and regale themselves with the beauties of a well-kept park, we also believe that if such a park can be made by the transformation of what is now a nuisance, a two-fold object will have been accomplished. They would suggest that this is possible, if the Martinville hollow be transformed into a pond of moving water, the sewage having been diverted and the banks of the pond graded and laid out. This, with the redemption of the marshy tract between First and Second avenues, would give a very nice park at a nominal expense.

Your committee desires further to refer with pleasure to the increased activity manifested by the Excise Board of the city of Albany, believing, as it does, that it is expedient that the number of liquor saloons be greatly diminished, and the laws in regard to the sale of liquor be stringently enforced.

Your committee desire to submit the result of their consideration of the subject of water-gas, by presenting the following paper by Dr. Russell, of the committee, as an appendix to the report:

WATER-GAS.

Water-gas is generally made after the "Lowe process," by passing super-heated steam over or through incandescent anthracite coal, and then mixing the product in hot retorts with light hydrocarbon vapors, as naphtha, benzine, etc.

Profs. William T. Sedgwick and William Ripley Nichols, of the Massachusetts Institute of Technology, are authority for the following: "Carbonic Oxide (monoxide) is the chief poisonous constituent of illuminating gases, and is the only such component of practical importance to the public health. Coal-gas contains on the average about 6 per cent. or more of carbonic oxide, whereas water-gas contains about 28 per cent. or more."

It is stated by them that—

I. With ordinary gas fixtures it is generally difficult to get more than 3 per cent. of illuminating gas into an ordinary room. By using one burner alone it is difficult to exceed 1 per cent.

II. With coal-gas it is a matter of some difficulty to get into an ordinary apartment, through the ordinary burners, gas enough to produce upon healthy animals distinctly poisonous effects. With water-gas, on the contrary, it is comparatively easy to get into an ordinary apartment, through the ordinary burners, gas enough to produce poisonous and even fatal effects.

III. It does not follow that because one illuminating gas contains three, four or five times as much carbonic oxide as another it is therefore only three, four or five times as dangerous to life.

IV. Experiments show that carbonic oxide is not a cumulative poison; that is, breathing a small quantity for a long time is not equivalent to the breathing of a large quantity for a short time. A similar conclusion may be drawn for all the constituents of illuminating gas.

Atmospheres containing 8 per cent. of either coal- or water-gas will destroy life very quickly, and atmospheres containing one-fifth of one per cent., or less, of either gas may be breathed for a long time without producing distinctly poisonous effects. But, between these limits, there is for each gas a percentage (different with the two gases, and always lower with the water-gas), above which the danger increases, and below which it diminishes very rapidly. This percentage is known as the "danger-line," or "threshold," and varies widely with individuals, sex, physical condition, etc. In terms of carbonic oxide it is probably never very far from one-half of one per cent. for man.

In view of the foregoing conclusions, based upon experimental evidence presented with their report, it seems that it must be admitted that water-gas with its thirty per cent., more or less, of carbonic oxide is a more dangerous substance than coal-gas with its five to seven per cent. of carbonic oxide, and that the only question that can be raised is, How much practical importance is to be attached to this poisonous character?

Prof. Henry Morton says that the burning of water-gas produces 50 per cent. more carbonic acid gas than is produced by the burning of coal-gas; hence the air becomes sooner vitiated with water-gas.

Upwards of fifty deaths were reported in New York, from water-gas, from October, 1878, to January, 1883; six in Toronto; eight in Brooklyn.

About one-half of the gas used in New York is water-gas, Brooklyn uses it largely, and many other cities. Albany is soon to be supplied with it.

Massachusetts has a law prohibiting the sale of gas containing above 10 per cent. of carbonic oxide; New Jersey makes the limit 2 per cent.

Brooklyn's coal-gas contains 7.9 per cent. of carbonic oxide; its water-gas 28.25 per cent.—*Prof. Remsen.*

E. A. Bartlett,
A. T. Van Vranken,
D. C. Case,
Lorenzo Hale,
F. C. Curtis,
Selwyn A. Russell.

THE GRADUAL DEVELOPMENT OF PHARMACY.*

BY GUSTAVUS MICHAELIS, PH.G.,
Professor of Pharmacy, Albany College of Pharmacy.

Gentlemen—To me is assigned the pleasant duty of bidding you welcome to-night on this the occasion of the opening of the sixth lecture course of the Albany College of Pharmacy, and I am sure that you will find yourselves welcomed by all those who have the honor and prosperity of the college at heart. I greet you with the greater pleasure, as the absolute certainty that *this* college is one of the growing institutions of its kind in the country is evident to all. We can, indeed, *justly* feel proud if we look upon the success which the school in its short career has achieved. What, a few years ago, was thought to be of a rather experimental nature is to-day an established fact, and the college is based upon a firm foundation. Not a small amount of this success, however, is due to the passing of pharmaceutical laws which close the doors to incompetent and unscrupulous adventurers. The passing and enforcing of these laws is a step in the right direction, and at once elevates the pharmacist from a common business man to the rank of a professional scientist. Indeed, no other calling deserves the name of a scientific art as well as the calling of the apothecary; in short, "pharmacy is a complex science."

Pharmacy can be divided into two distinct parts, the theoretical and the practical. If we look upon pharmacy from a purely theoretical standpoint, we can at once perceive that it is of the widest possible range, and embraces the knowledge of all the natural sciences. Plants, animals and minerals serve in their turn as medicine, and call for the knowledge of botany, materia medica, mineralogy, etc.; but it is not very often the case that the plants, the minerals or the animals enter into medicine in their crude or unprepared state, but must undergo various and often very elaborate treatment before they can become useful agents in the hands of the pharmacist and the physician. Such treatment can, again, be two-fold—either of a mere mechanical or of a chemical nature, and the pharmacist should, therefore, possess a certain knowledge of inorganic and organic chemistry and be acquainted with the fundamental laws of natural philosophy.

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*Introductory lecture, delivered Monday evening, October 4, 1886, at the opening of the sixth lecture course of the Albany College of Pharmacy.

My young friends, you can readily understand from these few words that the work which is expected from you, as future pharmacists, is great and not an easy task, and that it is, therefore, essential for you to put the shoulder to the wheel at the beginning of your pharmaceutical education. If you possess the necessary will power to execute your intentions, to grasp within your mind the great, wide field, you will come out victorious—you will surely solve the problem and leave the college covered with laurels, an honor to yourselves and your teachers, and become useful members of the community. You must not lose sight of the fact that you can learn something every day—that the sum total of each day's study will eventually be quite large, and will bring you the long-sought-for reward. You will find the *theories* expounded and the facts *explained* in the lectures useful in your every-day vocation, be it behind the prescription counter or in the laboratory. Theory and practice are sisters, and both essential to the student; with the knowledge of only one of them a full understanding of the science of pharmacy is absolutely impossible.

It has been remarked that theory and practice bear the same relation to each other as qualitative and quantitative science, and are in reality only two stages of the same. That this is true is well borne out by facts; for if we look back upon the history of science, we find that at first all science simply consisted in the recognition of the properties of bodies. The characters were made out which distinguished this thing from that and one kind of effect from another. The first thing was to determine the *qualities* of objects, and this was the work in the early or *qualitative* stage in the progress of science. But, qualities being ascertained, the next and inevitable step was to bring them under the operation of mathematics, which deals with the laws of quantity. First it was asked, "What are the properties or effects?" and next, "What are their degrees, or what quantities are involved in given results?" This implies exact measurement, and is known as the quantitative stage of science. For example, bodies which burn and produce heat have the property of combustibility, but the next question is, "How much heat will different bodies produce in burning?" It is a quality of sulphuric acid to combine with soda, and this was ascertained in the qualitative infancy of chemistry, but the question of how much acid will combine with a given amount of soda was only answered with the development of quantitative chemistry. It is a quality of animals that they exhale carbonic acid gas in respiration, but, when this was known, it became necessary to learn the rates of exhalation in the different tribes, and the variation of these rates in sex, age, activity, sleep and disease; therefore, qualitative information is the first indispensable step in the growth of knowledge, and it is just as truly "science" as the knowledge of quantities.

We find similar stages in the science of pharmacy. Its development has been very gradual, and it has taken two thousand years and more to bring it to the present elevated state. I shall endeavor, to-night, to speak of a few of the more important facts which were instrumental in the advancement of pharmacy.

We must presume that our ancestors have suffered from the same ailments as the present human race, and what was more natural for mankind than to look for matters and substances which would neutralize these ailments — in short, to look for medicines? A long time, however, must have elapsed before even the first qualitative remedial properties of certain matters were discovered; but it is impossible to locate these periods with even the least degree of certainty. We find the Chinese, thousands of years ago, with a well-developed medical system and an innumerable variety of matters with which to banish disease. These remedies were mostly used in the crude state and seldom subjected to what we may call pharmaceutical manipulation.

With the introduction of stills and a perfect system of distillation, pharmacy at once gains a variety of prepared medicines; numerous medicinal waters are introduced into the materia medica, extracts from plants are prepared, and we find with the Greeks and Romans a variety of pharmaceutical preparations such as we make use of at the present day. There are the juices, decoctions, infusions, extracts, electuaries, powders and pills for internal use, and the washes ointments, plasters, poultices, liniments and suppositories serve for external application. As remedies, alcohol and sugar, aloes, opium, cantharides and a large number of other substances belonging to the organic materia medica are mentioned; and here begins a new era for pharmacy, ushered in by the publication of numerous literary works which treat partially of materia medica and partially of pharmaceutical manipulation. A large number of these books were forwarded to the great university of Alexandria, where medicine and pharmacy were then for the first time taught and treated of as independent sciences. At this period we find also ideas and theoretical speculations proposing to resolve matter into its elements. There was Thales, who tried to prove that water was the fundamental element of matter, Anaximander ascribed it to the air, while Heraclit pleaded in favor of fire, and last, but not least, Aristoteles, who founded a philosophical system upon the four properties of matter, such as heat, cold, wet and dry, and to which he added a fifth element which he called the *essentia quinta.*

The first public pharmacy was erected in Bagdad about the eighth century, and then only a short time elapsed before laws were made which regulated the sale and composition of the different preparations, and official books published similar to our dispensatories and pharmacopœias.

PHARMACY AND INORGANIC CHEMISTRY.

One of the next marked advances in pharmacy is noted by the introduction of a number of pharmaceutico-chemical preparations. These came into use in the beginning of the fifteenth century, when the mercurial and antimonial preparations, which as chemicals had been known for some time, were brought into medical use. The road once opened, organic materia medica for a time lost its grip upon the minds of physicians and druggists, and in the next two centuries an astonishingly large variety of medicines originating from the inanimate world are introduced.

But, during all these years, the natural sciences, in their wide sense, were also enriched by a very large number of discoveries of the greatest importance, and these, in return, could not remain without influence upon the progress of pharmacy and chemistry. We possess works on pharmaceutical chemistry of that period which treat exhaustively of distillation, sublimation, evaporation, precipitation, etc., and give also numerous prescriptions for the preparation of syrups, tinctures, powders, etc., some of which are still in use. Already at that time the great importance of chemistry to pharmacy was fully recognized, and it was then deemed impossible for an apothecary not to be also a chemist. What is more natural than that, under these circumstances, chemistry played the most important part in pharmacy, that most chemical discoveries were made by pharmacists, and that almost each day added one or another new compound to the already large number of preparations. And right here begins a new phase for *chemistry*. Heretofore it had always been tried to define matter from a mere qualitative point of view, but now the minds of chemists began to look for the quantitative composition of matter.

PRIESTLY'S DISCOVERIES.

Preparatory to this new phase, and really the forerunner, was the discovery of the composition of air, followed by the discovery of oxygen. This has had an immense influence upon the development of the science, without which we pharmacists cannot exist, and I deem it proper to call your attention to the man who has done such great service to mankind. Dr. Joseph Priestly, a clergyman and a chemist, lived in Leeds, where he served as pastor of a large congregation. We find written about him that he happened to reside near a brewery, and accidentally observed that beer, during its fermentation in the vats, gave forth a remarkable aerial substance. The flame of a lighted stick immersed in it was at once extinguished, and the smoke floating on the top of the stratum showed that it was very heavy, a result which was perfectly confirmed by the observation that, invisible and intangible as it was, it could be poured from vessel to vessel like water; it would overflow the edges of the vats in which it originated and descend to the floor, along which it would run like a stream, its course being readily tracked by the expedient of putting a lighted stick into it and observing the extinction of the flame. Priestly found, moreover, that it would dissolve in water, for, if dishes of that liquid were placed where the gas had access to them, an agreeably acidulous and sparkling fluid was formed; and further, that the agent that brought all these results about possessed a remarkable physiological potency was proved by the fact, *too* often known in such manufactories, that if it was breathed by accident, death at once would take place. This substance was then called "fixed air," and is familiarly known to us as carbonic acid gas.

In the year 1774 he made the splendid discovery of oxygen, which he developed by heating red oxide of mercury in a small glass retort. He obtained the gas together with some drops of metallic mercury. As the sustainer of life, he applied to it the epithet "vital air." When it is remembered that this wonderful substance is the active element of the atmosphere and essential to the existence and activity of the entire living world—that it enters largely into the composition of all the natural objects around us, forming three-fourths the weight of the rocky strata and eight-ninths of the ocean; and, moreover, that it is an element of great chemical energy, and is involved in nearly every transformation of matter in the laboratory of nature, and in the arts, we shall be prepared to comprehend the significance of its discovery. It has given us a new chemistry and a new physiology, and probably carries the mind of man deeper into the order of nature than any other single scientific revelation ever made.

Priestly did not stay in his own country, but immigrated to the United States during 1794. He died in 1804 in Northumberland, Pa. Is it not a wonder that another chemist, Scheele, a Swede, should have made the same discovery at about the same time as Priestly, and that, nevertheless, neither of them were capable of drawing the conclusions of their discovery to its utmost limit? This was left for the eminent French chemist, Lavoisier, who unraveled the mystery which surrounded oxygen. He proved the elementary nature of the gas beyond doubt, and showed that the phenomena of combustion was, in fact, a chemical process—the combination of matter with oxygen. He proved this by weighing the products.

This discovery introduced the first element into chemistry and formed a tangible basis for a quantitative or exact science. Justice demands us to admit that while Priestly was the Copernicus of chemistry, Lavoisier became its Kepler. This unfortunate, but rarely gifted, man died by the hands of his own countrymen, a political martyr. His head fell under the guillotine on the 16th of Floral, in the second year of the French republic. It is easily understood what powerful influence *such* a discovery exercised upon scientists, and what fruit has it brought forth!

Gentlemen, it would be a hopeless undertaking to even enumerate in the few minutes allotted to me to-night the vast amount of material which has been unearthed since this discovery.

There is the elimination of hydrogen from the water, followed by the discovery of the metals of the alkaline earths, together with a number of other elements and the introduction of a legion of new compounds. Such a fruitful time as this was never seen before in any science. A score or two of years were sufficient to develop a full analytical system both of the inorganic and organic chemicals, and headed by Gay-Lussac, Liebig, and a hundred other chemists, began the examination of the organic compounds produced by nature.

Chemistry has been called the most useful of all sciences, and this is indeed true in the fullest and widest sense of the word. The arts, the industries, every-day life, and *last*, but not *least*, pharmacy, have received immeasurable benefit from the development of inorganic, as well as of organic, chemistry.

It would bring me too far from the scope of this lecture if I should undertake to roll up before your eyes a picture of the influence which both branches of the science have exercised upon the development of pharmacy, and, even taking one branch only, I have to restrict myself to the organic portion of chemistry, and select at random a few specimens from the vast amount of material at my disposal. As such I have chosen the organic alkaloids in a general, and the glycerin in a special, way.

ALKALOIDS.

The organic alkaloids or organic bases are chemical compounds which occur either naturally, or they may be artificially produced in our laboratories; they show as much similarity with the alkalies and ammonia as the organic acids do with the inorganic acids, for most of them have a decided alkaline reaction; that is, they turn red litmus paper blue and form yellow precipitates with platinum chloride, double salts of a very similar nature to the precipitate which is formed with ammonia. Many of them are capable of neutralizing the strongest acids. The alkaloids occur either gaseous, liquid or solid, and are sometimes volatile, sometimes non-volatile, dissolve with difficulty in water, much more easily in alcohol. Their solutions are precipitated by tannic acid, mercuric chloride, platinum chloride, etc., while with mercuro-potassic iodide they may be quantitatively estimated. The number of organic bases which have been *artificially* prepared is very large, and they are formed in various ways, but, with the exception of aniline, naphthaline, anthracene, and a few others, they are hardly known outside of the chemical world.

Just the opposite is the case with those organic bases which occur already formed by nature in the plants, and which have received the collective name, "alkaloids." They are, like many other chemicals, children of this century, for, in 1804, Serturner, an apothecary, prepared the first organic alkaloid, morphia. Unfortunately his discovery occurred at a time when the minds of the most eminent chemists of his time were occupied with the study of inorganic chemistry—a time when hardly the metallic nature of the alkaloids was proven. The production of a compound which possessed such similar properties with the metallic oxides came too early to excite the interest which it deserved. Thus fourteen years elapsed before his observations were verified, but he showed in another series of examinations, the results of which were published in 1816, that morphia was a body which was contained in the complex substance known under the collective name of gum opium, and that it possessed an undoubted alkaline character. Gay-Lussac and Robiquet prepared the alkaloid in the same manner as Serturner, by first extracting gum opium with water and precipitating the aqueous solution with ammonia. This crystalline precipitate was re-dissolved in alcohol, and thus morphia received in absolute purity.

The road once opened and the way shown, it was only a matter of experiment to ascertain that numerous other vegetable substances also contained alkaline bodies, and that, after their elimination, the remaining parts were entirely destitute of medicinal qualities. Thus Pelletier and Caventou discovered the cinchona bases in the calisaya barks, the strychnia in the fruits of strychnos nux vomica, not to speak of the hundreds of others of minor importance. The physician is now enabled to use morphia or codeia instead of the complex mixture, gum opium, which, in its totality, contains not less than twenty different chemical bodies, which are of heterogeneous medicinal qualities; he uses quinia and cinchona in place of the bulky infusion and tincture of calisaya bark; while strychnia in the form of a tasteless granule has taken the place of the nauseating tincture or solid extract of nux vomica. In one word, instead of mechanical mixtures, differing in composition and physiological effect, definite chemical compounds of constant efficiency have been placed at the disposal of the physician. I must not forgot to mention cocaine and its beautifully crystallized salts, which of late play such a prominent part in general and ophthalmic surgery.

The alkaloids are either volatile or non-volatile, and, furthermore, contain either C, H and N or C, H, N and O. This allows of a very characteristic distinction, in fact a division into two classes, as those alkaloids which are free from oxygen are volatile, while those which contain oxygen are non-volatile.

The preparation of the volatile alkaloids is very simple; the plants, or parts of them, are distilled with water in the presence of an alkali, and after neutralization of the distillate with H_2SO_4, are evaporated to dryness; the residue is re-dissolved in alcohol, again evaporated and then distilled with KHO. The only volatile alkaloid which at present has some pharmacentical interest is conia, discovered in 1831 by Geiger, and is contained in the leaves and seeds of conium maculatum.

For the preparation of the non-volatile alkaloids there is a very large number of different processes, which are, in the main, as follows: The crude comminuted material is extracted with water containing a small amount of HCl; the extract is filtered, supersaturated with KHO, and the precipitate collected and purified; or the extract is precipitated with acetate of lead for the elimination of coloring and extractive matter and filtered; the filtrate is then treated with H_2S to get rid of the lead, which is precipitated in the form of PbS; the filtrate is then concentrated, mixed with KHO, and the precipitated alkaloids are dissolved in a diluted acid; the solution is then discolored with animal charcoal, again filtered, and, after due concentration, precipitated with an alkali.

These methods can only be considered as intended to give you a general idea of how alkaloids are prepared in the laboratory, as in large manufacturing establishments each alkaloid is treated according to the individual ideas of the maker; all of them endeavor to get at the best results in the shortest time and with the least expense. I cannot, as I said at the beginning, enter into an exhaustive description of the *modus operandi* of each individual alkaloid, as my time is too short and as I intend to make a few remarks on the pharmaceutical chemical *par excellence*,

"THE GLYCERIN."

The career of this chemical is marvelous; for, a hundred years ago hardly known, it now plays a prominent part in pharmacy and the arts. Glycerin was discovered in 1778 by Scheele, a German apothecary and excellent chemist. He found it while preparing lead plaster, in the water which he used to wash the finished product with. The liquid was named by him "Scheele's suess," and was fully investigated by Pelouze and Berthelot, two eminent French chemists, and these scientists, even at that period, mention the close relation which glycerin bears to common alcohol. Glycerin is found combined with fatty (and oleic) acids in most fats and oils of the vegetable and animal kingdom. It may be eliminated from them in various ways, as, for instance, by stronger basic hydrates, by treatment with H_2SO_4, by the influence of superheated steam, etc. Some fatty substances undergo decomposition into free acid and glycerin by simple exposure to the influence of moist air. Glycerin is found combined with H_3PO_4 in the yolk of the egg, in the brain, in the gall, etc., and, according to the researches of Pasteur, glycerin is also formed during the vinous fermentation of sugar (about three per cent.), and therefore all fermented liquids, such as wine and beer, contain some of it. The natural fats serve as the material for the preparation of glycerin, from which it is received by saponification. Of a number of different methods which have been proposed, only those have been able to compete successfully which allow of the formation of either *insoluble* fats or which produce directly *free* acids. Those methods by which it is intended to isolate the large quantities of glycerin formed during the process of soap-making on a large scale seem to have been unsatisfactory, as, *practically*, all the soap manufacturers allow it still to run to waste with the salt solution.

For the preparation of this chemical on a small scale, the old method of Scheele, although somewhat troublesome, may be pursued. Olive oil, or any of the natural fats, is boiled with litharge (oxide of lead) and water until saponification is effected. The formed lead plaster is then removed, the fluid matters remaining are separated and submitted to the action of sulphide of hydrogen, by which agent that portion of the metallic base which was left in solution is precipitated. After filtration the liquid is exposed to careful evaporation under 212° F. until all the water is expelled and a viscid fluid remains. *This is glycerin.* Prepared in this manner it is a faintly yellowish fluid, with an agreeable sweet taste, soluble in water and alcohol, but not in ether. The alkalies, several metallic oxides and salts, more especially those which are known to deliquesce in the air, are dissolved by it to such an extent that it ranks next to water in solvent powers. It is a very stable compound, being persistent in air; it passes over *unchanged* when stilled at a moderate heat; it suffers *partial* decomposition when a temperature of 500° to 600° C. is used, but subjected to a heat *beyond* these temperatures it is *entirely* decomposed, being changed into *acrolein*, acetic acid and inflammable gases.

Up to about 1854 all the glycerine was prepared by Scheele's process, and as late as 1846 a Philadelphia pharmacist, R. Shoemaker, offered the first glycerin for sale as an article of commerce in the United States. He commenced in that year the manufacture of the plasters then officinal in the United States Pharmacopœia and of which empl. plumbi forms the base; this plaster naturally yielded large amounts of glycerin as a by-product, which he marketed at the value of $4.00 per pound. The sales for the first year reached about fifteen pounds. In 1849 the price was reduced to $3.00, and in 1850 to $2.75, per pound, and at this price the sales reached nearly two hundred pounds annually. But soon English glycerin of great purity appeared in the market, and it was sold at so much lower rates than Shoemaker could produce it that he was obliged to discontinue its manufacture. I am not sure whether he was a natural-born free trader or whether he did not know how to work the legislative corporations of his time; the bare fact remains that he stopped the manufacture of glycerin.

Before going on further, let us consider for a moment the chemical side of the production of glycerin. As is well known, the fats may be considered as neutral compounds of the fatty acids with the fatty bases, which are very similar to the so-called compound ethers. Most fats, as almond oil, olive oil, lard, suet, etc., are glycerides; that is, combinations of glyceryloxide with fatty acids. When a fat of this kind is brought in contact with an inorganic base which has a stronger affinity to the fatty acids than glyceryloxide, salts are formed. If, for instance, caustic soda and oil of almonds, which latter is a glyceride of oleic acid, are mixed and heated, oleate of sodium is produced. By the influence of soda upon olive oil, lard and tallow, oleate, margarate and stearate of sodium are formed, together with free glyceryloxide, which at the moment of its formation combines with water to glycerin. This process of the elimination of the hydroxide of glyceryle, or shortly of glycerin, in connection with the combination of the fatty acids with an inorganic base, has been called, and is, "saponification."

But such methods soon proved inefficient for the production of sufficient quantities of glycerin, and the busy minds of the technical chemists had to look for new means for its preparation. At the present time immense quantities of glycerin are produced as a by-product in the manufacture of candles; fats are also directly decomposed by superheated steam, and by their treatment in closed vessels with lime, in the presence of water, or, as is also often done, in the presence of sulphuric acid. The largest quantity and the purest glycerine is received if the fats are acted upon with lime, as during the treatment of the fats with concentrated H_2SO_4 a certain amonnt undergoes further decomposition; the yield is therefore not so large, and the product has a more colored appearance. The liquid received in either manner is a diluted aqueous solution of glycerin, which contains in one instance free H_2SO_4 and in the other $CaOH_2O$, and must be subjected to a further rectifying process. If the liquid is acid, it is neutralized by the action of lime or baryta, while, if the liquid is alkaline, it is subjected to treatment with H_2SO_4. The resulting neutralized liquid is evaporated in open iron pans to a specific gravity of 1.20 to 1.25, and then constitutes the crudest glycerine of commerce, and this must be refined for further purification. For this purpose it is diluted to a specific gravity of 1.07 and boiled with animal charcoal until all the coloring matter has been eliminated and all smell has disappeared; then the whole is filtered and finally concentrated in a vacuum. But even this so-called refined glycerin is, although colorless and free from smell, still a very impure liquid and entirely unfit for pharmaceutical and medicinal use. If it shall serve as a medicine, it must be subjected to a further purifying treatment. For this purpose the glycerine is again diluted with water, but, in this instance, only till it has reached a specific gravity of 1.15. The liquid is then introduced into a large still and steam of 100° to 110° C. temperature is run through for some time, in fact so long as the distilling product shows an acid reaction upon litmus paper or any other suitable reagent. As soon as the distilling product ceases to possess the above-described reaction the temperature of the steam is increased to 170° to 180° C. The glycerin vapors which now come over with the steam are cooled by leading them through a long copper serpent, which is surronnded by cold water; the liquefied product is then concentrated to the proper specific gravity. Pure glycerine is a colorless and odor-less thick liquid of a purely sweet taste and of a specific gravity of 1.267; it is very hygroscopic, and may attract moisture up to fifty per cent; it mixes readily with water and alcohol, but not with ether and chloroform, in which liquids it is perfectly insoluble. It bursts into flame when heated, exposed to the air, at about 150° C., while its boiling point is at 290° C.

But it is seldom the case that the so called commercial glycerin offered in the market is of the purity desired by the pharmacist, and no glycerin should therefore be taken into pharmaceutical use except such as has been thoroughly tested.

There are numerous methods known by which we are able to determine the purity of glycerin in a very short time. The impurities present can be readily divided into mere contaminations arising from carelessness during the process of its manufacture, such as oxide of lead, lime, butyric and formic acids, or willful adulterations, as glucose, cane sugar, gum, etc. We possess a good qualitative test for the purity of glycerin in a solution of argentic nitrate. When pure glycerin is shaken with a solution of nitrate of silver, no turbidity will occur and no change of color will take place during twenty-four hours; any glycerin which stands this test may be considered as pure. Glycerin may also be tested in the following manner: Equal parts of chloroform and glycerin are violently shaken in a test tube and then allowed to separate. The chloroform, being specifically heavier, will sink to the bottom, and, if the glycerin is pure, will remain unchanged; if, however, the glycerin is impure, it will have a turbid appearance, or else a turbid layer—a zone—will be formed between the two liquids. The presence of lime salts can be ascertained by the addition of a few drops of diluted sulphuric acid to a mixture of equal parts of glycerine, alcohol and water, by the appearance of a white precipitate. If this precipitate turns black upon the addition of H_2S, the presence of a lead salt is proven. Glycerin, when heated with a mixture of H_2SO_4 and alcohol, will develop the peculiar odor of butyric ether, if butyric acid be present. The presence of formic and oxalic acids, which are also found as impurities in glycerin, are of special interest to the pharmacist. When equal parts of glycerin and H_2SO_4 (s. g. 1.83) are mixed, no carbonic oxide gas will be given off if the liquid is pure, but if either of the acids are present, this gas will be evolved. To decide if both acids are present, and, if not, which one, some alcohol of 40° B. and one drop of H_2SO_4 are added and gently heated. Formic ether (essence of peach) will be recognized by its peculiar odor, and proves the presence of formic acid. To another sample of the glycerin a solution of $CaCl_2$ is added, which will give a precipitate of oxalate of lime, if oxalic acid is present. Common adulterants are water, syrup, cane sugar and mucilage. Water may be readily detected by the specific gravity, while cane sugar, glucose, dextrine and gum are detected when glycerin is shaken with equal parts of H_2SO_4, by the brown color produced. s have lately tested twenty-one different samples of glycerin, and I have found but few which would prove free from all impurities.

The physical properties of glycerin, such as its non-volatibility at ordinary temperatures, its dissolving power, etc., allow of a very diversified use; for instance, as a non-fermentable sweetener it is used in the manufacture of liquids and essences, for the preservation of fruit, etc., etc. The United States Pharmacopœia makes extensive use of its powerful dissolving properties in a number of pharmaceutical preparations. One of the most prominent applications of glycerin in this branch is its use in the preparing of fluid and solid extracts, tinctures and glycerites. Of the latter preparations it is to be regretted that all those formerly officinal were omitted in the last revision of the United States Pharmacopœia—at least two of them: I mean glycerite of carbolic acid and glycerite of tannin. Referring to the United States Pharmacopœia of 1880 it will be seen that glycerin enters into forty-two officinal preparations, of which I mention the following: Empl. ichthyocollæ, glyceritum amyli, glyceritum vitelli, liquor pepsinæ, massa hydrargyri, muc. tragac., pilul. phosph., syr. prun. virgin., tr. card. co., tr. cinch. co., and tr. cinchonæ. The use of glycerin with these tinctures shows particularly good judgment, as it is an excellent solvent for the cinchona alkaloids, and prevents to a great extent the formation of a precipitate in the finished tinctures. The same may be said in reference to tincture of galls and tincture of kino. When the last-mentioned tincture was prepared according to the United States Pharmacopœia of 1870 it would gelatinize in a short time, while this is almost entirely avoided when prepared according to the present officinal formula. Of the one hundred and eleven fluid and solid extracts now officinal, twenty-eight, or about one-fourth, are prepared with glycerin. In the preparation of the fluid extracts, glycerin acts not alone as a dissolving agent, but also prevents to a great extent the formation of a precipitate in the finished product. The addition of glycerin to the solid extracts is of great value, as it helps to keep them pliable. Such is the case, for instance, with a mass like pilulæ col. co., which mass generally gets very hard. By adding to it a mixture of equal parts of glycerin and water in sufficient quantity, the mass will remain soft for an almost indefinite length of time. A very good *general* excipient for pills can be made by taking three parts of glycerin and one part of gum trag. and one part water, placed in a porcelain capsule and heated over a water bath for ten or fifteen minutes. The resulting mixture will be an opaque jelly, which keeps well, and answers whenever pills shall be prepared from powders, etc. Even as a direct solvent glycerin is much used in pharmacy. It dissolves many substances, such as tannic, salicylic and carbolic acids, the hypophosphites of sodium, calcium and potassium, the cinchona salts, morphine, borax, gum arabic, glue, the anilines, potassic and sodic hydrate, pepsine, and a great many others too numerous to mention. Added to collodion it renders it flexible, and it may be readily substituted for Canada balsam and castor oil.

Technically glycerin is prepared in large quantities for the manufacture of nitro-glycerin, which is made by allowing glycerin to come gradually in contact with a mixture of highly concentrated nitric and sulphuric acids. The use of this explosive agent as a medicine is, however, very limited, whereas, on the other hand, immense quantities are annually consumed in quarries and mines.

Gentlemen, I could continue for hours without exhausting the subject, but this is not my desire. I merely intended to show how, from a small beginning, by the constant application of the busy minds of men, from orignally small things, great results have been achieved. Apothecaries have always been foremost in the ranks of investigating scientists, and if I have this evening planted in your hearts the desire to follow the steps of your great predecessors, I shall feel amply repaid.

Gentlemen, once more I bid you welcome in Albany.

NAPTHOL.—In the treatment of eczema, tetter, psoriasis, etc., use an ointment containing twenty-five grains napthol and six drachms of lanoline.

ACUTE NECROSIS OF THE TIBIA.

BY F. L. LADUE, M.D., ALBURGH SPRINGS, VT.
(Albany Medical College, 1883.)

[FOR ALBANY MEDICAL ANNALS.]

In the latter part of July, 1886, H. G., male, aged 11, was attacked with an erysipelatous inflammation of the right leg, extending from the toes to the knee, owing, as I then thought, to having waded in cold water after perspiring.

The inflammation, which was exceedingly severe, continued three weeks, despite all treatment. This then subsided, leaving the calf of the leg one large fluctuating mass, which opened near the head of the tibia, on the anterior side, and discharged immense quantities of pus. The opening being so high up, I subsequently made one lower down over the shaft of the tibia. For three weeks this discharged profusely. I then gave an anæsthetic, made an incision six inches long down upon the shaft of the tibia, and discovered what had been suspected—extensive necrosis of the shaft. There was a large cloaca leading downwards, large enough to admit the finger, through which could be felt a movable sequestrum. There was a large mass over the knee-joint below the patella, which gave a quasi-fluctuating sensation on palpation. This I suspected to contain pus, and aspirated it, but with no result. In a few days the head of the tibia began to recede from the articular end of the femur, and a dislocation seemed in progress. The tibia sank two inches and pushed out to the fibular side one inch. There was also lateral motion of the joint.

After a consultation, it was decided to amputate, which I did October 22, 1886, at the lower third of the femur. An examination of the diseased member disclosed a condition which clearly justified the operation. It presented an appearance identical with the illustration in "Bryant's Surgery," page 918, third American edition. There was complete dislocation of the tibia from the femur, and the entire head was necrosed and separated into several parts. The articular facet of the fibula was necrosed, and also the shaft of the tibia, to an extent of six inches, and a large movable piece occupied the center, around which nature, with her ever-ready help, was endeavoring to build a splint. The articular end of the femur was becoming involved, and there was pulpy degeneration of the synovial membrane, due to the prolonged articular ostitis. The mass below the patella, which I wrongly suspected to be pus, was a mass of the pulpy disease, which gave to palpation more of a doughy than a fluctuating sensation—a point in diagnosis worth remembering.

The boy is making a good recovery.

ABSTRACTA.

MICROSCOPY: OXIDE OF ZINC CEMENT—OIL OF CEDAR.—I NOTICE in June number of *Microscopical Journal* a complaint concerning oxide of zinc cement. I think Mr. Claypole's annoyance has been caused by impurity of the zinc oxide used. Very little of the oxide, as purchased, is pure, as it contains a portion of the carbonate, due to exposure to air, from which it takes up carbon dioxide. If the oxide is exposed to a gentle heat before use, to drive off the carbon dioxide, and thus destroy the zinc carbonate, the trouble will be likely to disappear. I have noticed that oil of cedar (used as immersion fluid) is apt to soften or destroy the zinc cement rings, if they are at all recent, and mention it because I have not seen it noticed.—*T. F. C. Van Allen, Albany, in American Monthly Microscopical Journal*, Sept. 1886.

A HOSPITAL CASE.—The following is related: A woman, seriously sick, was conveyed into a hospital in Albany. She had been "keeping a place," and was said to have accumulated over $60,000. In due time a priest was summoned, and when the woman was made all clear and right, the priest said: "My dear woman, this is a terrible life that you have been leading; the proper thing for you is to become religious, give up your business and your former mode of life, and join the holy sisters and give your property to the church." Well, she would think of it, and the priest would call again. On the priest's return, he asked if she had thought over his proposition. "Yes, father, I have; but you know the way in which I took in that money. You would not think it any harm, would you, to take that money, or for the chúrch to have it, considering the way in which it came?" "No, not at all, certainly not; it is the proper thing to do." "Well then, father, since you don't think it any harm to take that money, I don't think it any harm for me to keep it."

PHYSIOLOGICAL CLOTHING.—Dr. Lopez, of Philadelphia, says that a boy's jacket or overcoat should have what is called breast-pockets; the opening should be high and as far back as possible, parallel with and in the line of the body, instead of low down and transverse, as usually found in the ordinary jacket or overcoat. The pants should have what are called hip pockets, and no others. It will then be apparent that whilst the hands are in the pockets a better, if not a perfect, position will be assumed, and the boy spared the many admonitions to keep his hands out of his pockets, and the accompanying box on the ear.—*Med. and Surg. Rep.*

CORROSIVE SUBLIMATE IN HYDROPHOBIA.—A peasant of St. Anastasia, aged 52, was bitten, May 10, in the leg and forearm by a dog whose rabid condition was verified at the necropsy. July 28, the man was suddenly seized with malaise, excitement, and a sense of constriction in the throat. The sight a glass of water threw him into mania followed by convulsions. He complained of feeling cold, and the slightest breath of air provoked excitement, convulsions and delirium. Dr. de Capua, at the Hospital for Incurables at Naples, used repeated hypodermatics of corrosive sublimate, and combatted the culminating nervous paroxysms with hypodermatics of atropine, which he alternated with those of the sublimate. After a few days the patient could eat and drink, and expressed a desire to leave the hospital.

The delirium assumed three forms in succession: (1) Mournful and melancholic; the patient believed himself to be the object of all kinds of persecution. (2) A delirium relating to his occupation; he imagined that he was busy with agriculture. (3) Mystic delirium; prayers and hymns from morning to night.—*Jour. d'Hygiene; N. Y. Med. Abstract.*

TO PREPARE LIGATURES.—Prof. Gross uses Macewen's method: Take one drachm of chromic acid (crystals) to five ounces of water; of this solution take one ounce and add to it an ounce of glycerine. In this latter steep the animal ligatures ten days, then remove and thoroughly dry them. Now, for preservation, keep them in a 5-100 solution of carbolic acid.—*Col. and Clin. Rec.*

GELATIN BOUGIES and suppositories (*Rundschau*) are made of firmer consistency by the addition of acacia, without, it is claimed, interfering with their solubility. The proportion is about as follows: Gelatin, 5 ounces; acacia, 5 ounces; glycerin, 12½ ounces, and water sufficient to make 25 ounces. The gelatin and acacia may be dissolved in water separately, then mixed with the glycerin and evaporated to the proper consistence.

NON-SMOKERS digest their food in six hours, while the smokers require twelve hours.—*N. Y. Med. Abstract.*

ALBANY MEDICAL ANNALS:

A Journal of the Medical Society of the County of Albany.

EDITORIAL COMMITTEE:

F. C. CURTIS, M.D., A. VANDER VEER, M.D., LORENZO HALE, M.D.,
JNO. BEN. STONEHOUSE, M.D., WILLIS G. TUCKER, M.D.

Vol. VII. NOVEMBER, 1886. No. 11.

BOOK NOTICES.

DISEASES OF THE NERVES, MUSCLES AND SKIN; being Vol. III. of Dr. Hermann Eichhorst's Handbook of Practical Medicine, and Vol. X. of Woods Library of Standard Medical Authors, 1886 (consisting of 12 vols., price, $15.00). Sold only by subscription. William Wood & Company, New York.

The author's "short, sharp and decisive" style enables the publishers to give in one volume as much *bonâ fide* matter as we have supposed must requlre twice as many words. And more than this, the volume is not all words, for highly valuable illustrations, many of which are new, occupy a large fraction of the space.

In the treatment of siatica, the author makes no mention of Malgaigne's application of the actual cautery to the external ear at the anterior part of the helix at its entrance into the concha. Of this method Erb has said: "Our ignorance of its mode of action is no reason why it should be held up to ridicule;" and he might have added, "or be neglected." The author uses the term "*herpes* tonsurans maculosus," in preference to "*tinea* trichophyton circinata." But trifles may easily be forgiven in this volume, which is really rich in excellencies of every kind.

EXCHANGES, PAMPHLETS, ETC.

The Journal of Comparative Medicine and Surgery. Over a hundred 8-vo pages quarterly, $2 a year. A. L. Hummel, M.D., publisher, 1217 Filbert street, Philadelphia, Pa. Edited by W. A. Conklin, Ph.D., D.V.S., Director of Zoological Gardens, N. Y. city, and Rush Shippen Hinderkoper, M.D., Veterinarian (Alfort), Dean of Veterinarian Department, University of Pennsylvania. Collaborators—In Comparative Anatomy and Physiology: Prof. Prof. Joseph Leidy, M.D., LL.D., University of Pennsylvania; Prof. Henry C. Chapman, M.D., Jefferson Medical College; Prof. R. Meade Smith, M.D., Univ. Penn.; Prof. J. T. Duncan. M.D., V. S., Ontario Veterinary College; Prof. C. M. O'Leary, M.D., N. Y. city. In Comparative Pathology: Prof. Albert Johne, Royal Vet. School, Dresden, Ger.; Prof. James Tyson. M.D., Univ. Penn.; Prof. R. H. Fitz, M.D., Harvard; Prof. Wm. Osler, M.D., Univ. Penn.; E. O. Shakespeare, M.D., Blockley Hospital, Phila.; A. W. Clement, V. S., Montreal Vet. Col.; Thomas B. Rogers, D. V. S., Univ. Penn In Comparative Surgery: Prof. James Law, F.R.C.V.S., Cornell; Prof. C. P. Lyman, F.R.C.V.S., Harvard: Prof. D. McEachran. F.R C.V.S., Montreal Vet. Col.; Prof A. T. Yokura, V.S., Imperial School, Tokio, Japan; Prof James L. Robertson, M.D., V S., Am. Vet. Col.; Prof. Wm. L. Zuill, M.D., D.V.S., Univ. Penn. With the change in publishers the publication office is transferred to Philadelphia, and the journal itself is enlarged and improved in every department. The paper and typography are better; the number of pages is increased, and by the addition to the editorial corps of some of the best-known and most scientific members of the medical profession the journal has assumed a more thoroughly scientific aspect than ever, utilizing as it does the best material from Harvard, University of Pennsylvania and other prominent colleges. It is the only journal published on Comparative Medicine and Surgery, and the reputation of its editors is sufficient guarantee that this field of science will be well represented.

The British and Colonial Druggist, 21 New Bridge street, London, E. C. 24 quarto pages reading, weekly, 10s. a year, post free to any part of the world.

American Agriculturist, 44 pages, large quarto, monthly, $1.50 a year, 751 Broadway, New York city. This beautifully illustrated magazine is popular in city and country.

Parke, Davis & Co. have presented samples of Syrup Trifolium Compound; Hematic Hypophosphites with Quinine, Strychnine and Manganese; Cascara Cordial; Pills and Pink Granules.

"A Case of Congenital Hereditary Atonic Dyspepsia," in which an infant's life was evidently saved by Lactopeptine. R. W. Beers, M.D., Angola, La. Reprint from *Medical Brief*.

"Tressy's Christmas." By Margaret Sidney. Sent to any address for 2 cent stamp. D. Lothrop & Co., Boston.

"Method in Medical Study." Charles H. May, M.D., Instructor in Ophthalmology, New York Polyclinic, etc. From *New York Medical Journal*, Sept. 18, 1886.

"The Exploration, Excavation and Illumination of the Interior of Bones in any part of the Body." Milton Josiah Roberts, M.D. Addressed to the Clinical Society of the New York Post-Graduate Medical School and Hospital, February 21, 1885.

"Indirect Fractures of the Skull." Illustrated. C. W. Dulles, M.D., Philadelphia. P. Blakiston, Son & Co., publishers.

"In Memoriam—Austin Flint, M.D., LL.D., James Marion Sims, M.D., of New York." Read before the Medical Society of the County of New York, September 27, 1886. By W. M. Carpenter, M.D.

"A Prior Discovery." A method of Perinæorrhaphy. By John W. Streeter, M.D., Chicago, from *The Medical Current*, January, 1886. By Prof. Streeter's method no tissue is cast away, but the separated vaginal floor is left as a roof over the wound. W. A. Chatterton & Co., publishers, Chicago.

"Transactions of the Medical Association of the State of Missouri," twenty-ninth session, St. Louis, May 3, 1886.

"Surgical Notes from the Case-Book of a General Practitioner." Wm. C. Wile, M.D., Newtown, Conn. From *New England Medical Monthly*, July, 1886.

"The Seguin Physiological School for Feeble-Minded Children, 168 West 54th street, New York. Ninth Year. 1886-87." Mrs. Elsie M. Seguin.

"Galvano Cautery in Diseases of the Prostate, Bladder and Urethra." By Robert Newman, M.D., New York. From *Journal af American Medical Association*, August 28, 1886.

"Is Electrolysis a Failure in the Treatment of Urethral Strictures.' Robert Newman, M.D., New York. From *The Medical Record*, September 25.

"Report on Classification of Mental Diseases as a Basis of International Statistics of the Insane, made to the Belgian Society of Mental Medicine." By Clark Bell, Esq., International Delegate for North America, 57 Broadway, New York.

"Biloxi Fever." Report of New Orleans Board of Health.

MEDICAL NEWS.

ALBANY MEDICAL COLLEGE—RECEPTION TO STUDENTS IN THE MADISON AVENUE REFORMED CHURCH.

The reception at the Madison Avenue Reformed Church, on Wednesday evening, October 20, was under the auspices of the Y. M. C. A. A goodly number of ladies were present. Mr. Charles Van Wert, class president, class of '87, presided during the exercises, which began with a selection by the college glee club. Dr. Willis G. Tucker spoke in behalf of the faculty and students, thanking the people for their hospitality and congratulating those entertained on the unprecedented feeling of unity and good-fellowship which prevails among them. Dr. Vander Veer, in a happy strain, reiterated Dr. Tucker's well-chosen sentiments, and impressed upon those present the duty and privilege of relying, in all daily pursuits, not upon their own skill, but upon Christ, who is always the best and truest friend. The church pastor, Wesley R. Davis, D.D., assured those present of their hearty welcome, expressed his pleasure at meeting so many young men, and bespoke the interest which the Christian people and churches of the city cherish for them, assuring them that every church door and every clergyman's heart is open to them. Mr. S. S. Hatt, president of the Albany Y. M. C. A., in presenting the needs of the association, said its one great want was power, and that power lies in the young men; therefore he urged the reorganization of a branch of the association at the Medical College, and added that in addition to the help it would be to the association, the students would gain for themselves great comfort and profit. Miss Burt favored the audience with two well-rendered readings, after which refreshments were served by the ladies' auxiliary committee. The exercises were interspersed with musical selections by Mrs. Bentley and the college glee club. President Van Wert, in closing, thanked the ladies again for their kind reception, which was the first ever tendered the medical students, and expressed the appreciation his fellow students had of their hospitality.

The reorganization of the college branch of the Y. M. C. A. has now taken place, and a college prayer-meeting is regularly held in Alumni Hall, Albany Medical College building, every Sunday afternoon at four o'clock.

THE CLASS OF '88—MEDICAL STUDENTS SERENADE THEIR PROFESSORS AND BANQUET AT THE DELAVAN.

The class of '88 of the Medical College, "the most ambitious that the institution has known in many years," enjoyed its second annual banquet at the Delavan, Tuesday evening, Oct. 26. About seven o'clock the forty odd progressive spirits composing the class, with their guests, assembled in the chemical lecture room of the college, where ex-President C. B. Rogers presented them with a class banner, the first in the history of the institution, bearing a skull and cross-bones and the figures "'88" in white on a dark blue field. The class marched, headed by the Liberty band, to serenade the members of the faculty. The order of the line was: Police; the band; the standard, borne by Samuel Newcomb, garbed in a dissecting gown; Marshal F. C. Stannard and Assistant R. McFarlane; the class officers—President A. L. George, Vice-President G. G. Lempe, Secretary G. W. Barry; Historian R. Bestle—each bearing a thigh-bone; the members of the class and guests. After a long march the class gathered about the banquet table in the smaller dining-room at the Delavan, where covers were laid for forty-five. Chaplain J. J. Evans made the opening prayer, and the evening's festivities began. The *menu* was elaborate and served in excellent style. During the progress of the banquet, vocal selections were rendered by Messrs. Gandy and James Cronin. Mr. J. L. Larkin presided as toastmaster, and during the last course these toasts were responded to: "Address of Welcome," President A. L. George; "Class of '88 as Freshmen," ex-President C. D. Rogers; "Professors," E. A. Ludden; "Class Prophecy," W. H. Fox; "Higher Duties of a Physician," G. W. Barry; "Recitation," R. McFarlane; "The Press," Mason Hutchings; "Athletes, Class '88," F. R. Brundage; "Wein, Weib, Gesang," G. L. Lempe; "Triangle," C. R. Bradley; "Ambitious Medical Students," B. L. Goldthwait; "A. M. C.," T. C. Lawler; "Song" (comic), R. McFarlane; "The Girls we Leave Behind," E. Potter; "Mine Host," J. W. Quinlan.

Dr. David Fleischman, secretary, was authorized at the annual meeting, Tuesday, October 12, to act in behalf of the Medical Society of the County of Albany in the execution of the provisions of the state law of 1880 against illegal practitioners. By Secretary Fleischman's prompt action "Dr." George W. Hawley was bailed to appear for trial in the Court of Special Sessions, on Tuesday, October 19. His employer and bondsman, "Dr." H. M. Wilson, did not appear, and inquiry showed that both Hawley and Wilson had "skipped the town" the Saturday night previous with their cargo of nostrums. They have probably gone back to Detroit, from whence they came. Complaint had been instituted against Hawley for practicing medicine without having registered, and Wilson was to have been arrested on the same charge had he appeared.

Coroners' Physicians.—The Board of Supervisors of Albany county, at the annual session held Wednesday afternoon, November 10, 1886, elected the following coroner's physicians: Dr. James H. Mitchell, of Cohoes; Dr. Lansing B. Winne, Albany; Dr. J. C. Healey, Albany; Dr. G. H. McTammany, Cohoes.

Rush Monument.—The American Medical Association, at Washington in 1884, appointed a committee to receive funds for a monument of Benjamin Rush, of Pennsylvania, to be placed in Memorial Hall, Washington. We are requested to name the member of this committee for New York state, Dr. A. N. Bell, 113 Fulton street, New York city, to whom, or to the treasurer of the committee, Dr. Joseph M. Toner, Washington, D. C., subscriptions may be sent.

Cocaine Addiction.—If any reader has met with a case of cocaine addiction, J. B. Mattison, M.D., 314 State street, Brooklyn, will thank him for full details and give him credit in a coming paper.

PERSONALS.

—PHYSICIAN'S PRACTICE AND RESIDENCE FOR SALE.—Dr. J. H. Gallup (A. M. C., '71), Delmar, formerly Adams' station, Albany county, being in ill-health, offers his place for sale.

—The ANNALS committee have lately received letters from the states of New York, Vermont, Massachusetts, Connecticut, Rhode Island, Pennsylvania, Ohio, Indiana, Missouri, Minnesota and California, from Heidelberg, Germany, and from Lausanne, Switzerland; the majority are from alumni of the Albany Medical College, and express high regard for *Alma Mater* and for the ALBANY MEDICAL ANNALS as well.

—Dr. Julius F. Miner ('47) died at his home in Buffalo, N. Y., on Friday, November 5, aged 63. He was born in Pern, Mass., in 1823. He settled in Buffalo in 1875, and became eminent in his profession, ranking for many years as the ablest surgeon in western New York. He was for several years professor of special and clinical surgery in the Buffalo Medical College, and the founder and editor of the *Buffalo Medical and Surgical Journal.*

—Dr. R. Strickland ('39), Enfield, Conn., an alumnus in the first graduating class of the Albany Medical College, is one of the recent new subscribers to the ALBANY MEDICAL ANNALS.

—Dr. Isaac C. Edson ('67), Windsor, Broome county, N. Y., is Republican assemblyman elect.

—Dr. Wallace E. Dietz ('82) has removed to Berne, Albany county, N. Y., his native place, after a practice of two years at Howe's Cave.

—Dr. E. E. Larkin ('85), having completed his term as resident physician in the Albany Hospital, has opened his office at 27 Eagle street, corner of State street, Albany, in the Vander Veer building.

—Dr. James P. Marsh ('85) has removed from Troy, and opened an office in Green Island, Albany county, N. Y.

—Dr. Douglas C. Moriarta ('85), Saratoga, N. Y., is elected coroner on the Republican ticket.

—Dr. A. H. Hoadley ('86) began service in the Albany Hospital in October.

—Dr. Richard H. McCarty ('86), Schuylerville, Saratoga county, is elected coroner on the Republican ticket.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY.

MINUTES OF THE ANNUAL MEETING OF TUESDAY, OCTOBER 12, 1886.

The annual meeting of the Medical Society of the County of Albany was held at Alumni Hall, on Tuesday, October 12, at 3 P. M.

President Steenberg in the chair and the following members present: Drs. T. P. Bailey, Ball, Bartlett, Bendell, Bigelow, Blair, Boyd, Britton, D. C. Case, Classen, Cook, Cooper, Curtis, DuBois, Dwyer, Featherstonhaugh, Fleischman, Fowler, Green, William Hailes, Jr., Lorenzo Hale, J. E, Hall, Hallenbeck, Haynes, Hennessy, Holding, Hull, La Moure, Maurice J. Lewi, Mereness, Merrill, Morrill, Morrow, Munson, T. W. Nellis, W. J. Nellis, Russell, R. H. Sabin, W. B. Sabin, Sand, Shanks, Stillman, Townsend, Tucker, Van Allen, Vander Veer, Van Vranken, Woodward.

Minutes of semi-annual meeting were approved.

The following report of the Board of Censors was read and accepted:

At a meeting of the Medical Society of the County of Albany, held at Alumni Hall, October 12, 1886, the following names, with the necessary credentials, were presented and unanimously recommended for membership to this Society: J. H. E. Sands, Martin McHarg, E. Haines, Lawrence Kenny, J. W. M. Shattuck, F. R. Greene, G. W. Holding, F. S. Quackenbos.

(Signed,) B. U. STEENBERG,
J. D. FEATHERSTONHAUGH,
THEO. P. BAILEY,
A. T. VAN VRANKEN.

Dr. D. FLEISCHMAN, chairman of the Committee on Registration, read the following:

The Committee on Registration respectfully report that since the last annual meeting of the Society the following physicians have registered in the office of the county clerk: October 7, 1885, J. W. King, Albany Medical College; October 19, 1885, Albert D. Hill, A. M. C., 1885; December 12, 1885, S. C. Crittenden, New Orleans Medical College; November 30, 1885, J. A. McCaughin, A. M. C.; December 2, 1885, O. Britton, Bellevue Hospital Medical College; December 12, 1885, Edgar W. Bryce. Hoosick Falls, M. I. Medical College; October 8, 1885, E. E. Larkin, A. M. C.; October, 8, 1885, S. Louis Lloyd, Maine Medical College; August 26, 1886, Francis Salmon Quackenbos, College Physicians and Surgeons, New York; March 15, 1886, J. H. Reilly, A. M. C ; July 1, 1886, Joseph G. Russell, diploma granted by Hahnemann Medical College. Chicago; May 26, 1886, Willard C. Marselius, A. M. C.; May 24, 1886, Will. M. Head, Cleveland Homœopathic College; September 17, 1886, Joseph S. Parent, A. M. C.; April 3, 1886, A. F. Lombard, University of Vermont; April 19, 1886, William McNaughton, A. M. C.; March 4, 1886, J. F. Fitzgerald, A. M. C.; June 1, 1886, F. A. Faust, New York Homœopathic College; July 21, 1886, Dayton L. Kathan, A. M. C.; April 8, 1886, James H. Clyne, Cohoes, A. M. C.; May 11, 1886, Lawrence J. Dailey, Medical Department University of the City of New York; June 9, 1886, W. E. Deitz, A. M. C.; July 6. 1886, J. H. E. Sand, New York Medical University; February 6, 1886, Elmer A. Blessing, Burlington Medical College; March 4, 1886, Adam J. Blessing, A. M. C.; March 23, 1886, Arthur S. Capron, A. M. C.; March 22, 1886, J. H. Van Rensselaer, A. M. C.; March 23, 1886, C. T. Walton, A. M. C.; March 25, 1886, T. F. Walsh, American Eclectic Medical College, Ohio; November 30, 1885, C. Von Spiegle, Saratoga Springs, Eclectic

College, Cincinnati; November, 30, 1885, J. C. Spiegle, Schenectady, University of Buffalo; May 11, 1886, A. W. Sovereen, College Physicians and Surgeons, Ontario; May 2, 1886, John G. Luggins, Michigan College of Medicine, Detroit.

The committee recommends the prosecution of those practicing medicine illegally, whether permanently or temporarily located, and considers it advisable for the Society to determine who shall take the initiative, the President, the Secretary (as is the case, I believe, in the New York County Society), or the Committee on Registration.

The committee refers with deep regret to the death of two of its members, Dr. Henry March and J. W. Moore.

D. Fleischman,
H. E. Mereness,
W. J. Nellis, *ex-officio.*

The report was accepted and a copy requested for publication in the Albany Medical Annals.

Dr. Vander Veer moved that the Secretary be authorized to prosecute illegal practitioners in the name of the Society. Carried

Dr. U. B. La Moure, Treasurer then submitted the report of the Society's finances, showing a balance on hand of $8.28 above all debts and expenses and stating that the Society was free from all debt.

On motion a committee of three, consisting of Drs. Featherstonhaugh, T. P. Bailey and Hale, were appointed to examine the Treasurer's accounts. The committee subsequently reported that they had examined the accounts and found them correct. The report was accepted and the committee discharged.

The Committe on Hygiene and the Relations of the Profession to the Public reported through its chairman, E. A. Bartlett. [See page 321.]

On motion the report was accepted and ordered printed in the Albany Medical Annals.

On motion the physicians whose names were presented in the report of the Board of Censors were received into membership, the Secretary, by unanimous consent casting one ballot for the Society.

President B. U. Steenberg then delivered the annual address. [See page 301.]

On motion a vote of thanks was extended to President Steenberg for his admirable address, and the address was made a special order for discussion at the second regular intervening meeting.

The Society then proceeded to elect officers for the ensuing year.

The president appointed Drs. H. E. Mereness, John E. Hall and E. A. Bartlett to serve as tellers.

The following named officers were elected:

President—Lorenzo Hale.
Vice-President—S. R. Morrow.
Secretary—David Fleischman.
Treasurer—S. A. Russell.
Censors—B. U. Steenberg, O. D. Ball, C. E. Witbeck, James P. Boyd, James C. Healey.
Delegates to Union Medical Association—C. M. Culver, W. J. Nellis.

Adjourned.

W. J. Nellis, *Secretary.*

ALBANY
MEDICAL ANNALS:
A Journal of the Medical Society of the County of Albany.

Vol. VII. DECEMBER, 1886. No. 12.

COLD APPLICATIONS IN EYE DISEASES.*

BY G. S. MUNSON, A.M., M.D., ALBANY.
(ALBANY MEDICAL COLLEGE, 1879.)

In preparing this article to be read before our County Medical Society, it has been my endeavor to present a practical paper, that might be of interest, and, I trust, profit as well, to the general medical and surgical practitioner. All unnecessary technicality and pathological points have been purposely avoided. At another time I may be permitted to present you, in contrast with this paper, an article bearing exclusively on the use of hot water; but at present I wish to direct your attention to the importance of cold as a local remedy in many eye affections.

The cure or recovery of the eye from many local diseases depends upon the removal of two factors: first, the increased blood supply; second, the febrile action. To accomplish this, I know of no stronger antiphlogistic than cold locally applied. Cold acts as a powerful irritant, forcing the muscular walls of the blood-vessels to contract, thereby causing a narrowing of their calibre, and in this way decreasing the amount of blood carried to an inflamed part, retarding the escape of the white blood corpuscle, and thereby lessening secretion. We soon find the conjunctiva paler and pain and swelling diminished. By cold, heat is continuously removed, and a high temperature is exchanged for a lower and more normal one. Also, cold lessens the sensitiveness of the tissues, and we find pain very slight, if existing at all.

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* Read before the Medical Society of the County of Albany, Wednesday evening, November 24, 1886.

I have now pointed out to you that the cardinal symptoms of eye inflammation — heat redness, swelling and pain — are controlled by cold, when properly applied. We must never allow the application of cold to go so far that the temperature of the parts sinks much below the physiological standard, or else we may have, as an evil result, the occurrence of a chill, and such internal catarrhal symptoms may arise as we often see after "catching cold." A safe and good rule, which I have always followed in all forms of catarrhal inflammation of the eye in which there existed a mucous or purulent secretion, is to make use of cold applications only so long as the warmth of the inflamed part is greater than that of the surrounding parts, as judged by my fingers laid gently on the burning lids. Cold, to be of benefit in a large percentage of cases, must be employed carefully and at intervals; and only in very urgent cases, as in certain severe inflammations of the external portions of the visual organs, do continuous applications become absolutely necessary.

While I do not claim for the cold application that it is a "cure-all," yet the vast majority of external inflammations of the eye, for which the family physician is the one first consulted, can be speedily benefited, and a cure hastened, by this remedy. I know that it is the general advice and prevailing opinion, which one meets with everywhere, to make use of hot water in almost all forms of eye disease; but I have found in an experience of over six years, that the cold is often most comfortable to the patient and most beneficial in its after-affects, so that now there is scarcely a day but some case presents itself at my office in which, to allay congestion in this organ, I have to advise the judicious use of cold application; and I know no remedy at our command which controls congestion so safely, surely and speedily. Again, I can recall no case in which the loss of an eye could be traced directly to the application of cold; while, on the contrary, I have met several cases in which there can be scarcely a doubt but that the continuous application of heat resulted in the loss of one or both organs of vision.

In the spring of 1884, the following case came under my care at St. Peter's Hospital, which indicates what only too often occurs from an injudicious application of heat:

Pat. K., aged 45 years, a stonecutter on the Capitol. Had been troubled with slight granular lids for years, but not so as to injure sight or to be troublesome beyond a mere annoyance. Five days before his entrance at the hospital he got a small chip of steel in his right eye, for which he consulted one of the local dispensaries in Albany, where a physician removed the steel, and then advised him to keep on hot applications till the irritation had disappeared. Patrick K. followed the physician's advice "too well, but not too wisely." On the following day he returned to the dispensary with his eye much worse, lids swollen, probably some chemosis, and some pain. He was given the same advice, but to have the applications hotter and changed frequently. He did not consult the dispensary again, but, however, continued the constant application of heat, changing on the fourth day to a beef-steak poultice. Upon his entrance to the hospital on the fifth day, there was a greenish purulent discharge established, the cornea had sloughed almost completely, lids thick and swollen, and considerable pain. He was greatly surprised and astonished when informed that the eye was hopelessly lost. To shorten his history, let me say that under the application of cold the swelling very soon subsided, the pain disappeared, the discharge became healthy and gradually ceased, and in the course of a week he was discharged from the hospital much improved, although, of course, nothing could restore sight to that organ.

How then shall we make the application of cold to an eye?

Much depends on our answer to this question, if we wish to obtain the beneficial results to which we have already alluded.

First. The water should be ice-cold as a rule, although when the temperature of the eye is not much above that of the surrounding tissues, the water may be a trifle more mild—what is commonly termed cool.

Second. In mild catarrhal inflammations, and such troubles as phlyctenulæ in children, and also after touching granular lids with caustic, I have the patient sit or stand, as most convenient, by a penstock from which is running water, and in this manner douche the closed lids with water thrown against them by the hand. It is a mistaken idea, though quite prevalent, that the water should enter the eye itself, for plain water causes a swelling of the epithelium of the conjunctiva, besides carrying particles of dirt with it into the eye, either of which is manifestly injurious. It is the cold which the water carries that is the remedy, and not the water itself; therefore, always douche the closed lids.

Third. The length of time that the douching is continued varies with the degree of inflammation or irritation. If it is a superficial irritation, as caused by an application of zinc or alum to the lids, or when the disease is a simple mucous catarrhal inflammation, such as is commonly called a cold in the eyes, or, again, when the eyes are painful, tired, and feel as though there were particles of sand or dirt in them after prolonged close application, as in reading, sewing, etc., I find that douching three or four minutes, as many times a day, may suffice. I might add that I prefer that only the mass of water thrown by the hand against the lids should be the method employed, and that no cloths nor sponges be used. In the chronic and deep-seated inflammations, it may be necessary to apply it for five minutes every half hour, my guide being the effect produced on the vascularity of the tissues, and the comfort and relief which these applications afford the patient. Like opium, it quiets pain and gives soothing relief, and when the unpleasant symptoms return again, like opium, another dose of the douche becomes necessary.

Fourth. In the deeper, acute and more severe forms of purulent ophthalmia, such as gonorrhoic, blennorrhoic, diphtheritic ophthalmia, and acute trachoma, the best effects of cold are obtained from the proper application of ice-cold compresses. These compresses, best made of three or four thicknesses of linen, should not be of larger size than sufficient to cover the swollen and burning lids, in order to abstract heat only from the parts which are inflamed. There should be a number of them; and they are best made cold by placing them on a block of ice. The lids should first be smeared with vaseline to prevent excoriation, and then, so long as the lids are hot and inflamed, the compresses should be applied and changed on the lids at first every few seconds. If the cold becomes appreciable or painful to the patient, it is best then to apply them less frequently, say one every two or three minntes. These applications in the severer forms of inflammation should be kept up continuously day and night, and in a few days you will have the pleasure of seeing your patient in every way much better, and what at first appeared a very formidable disease, and threatened the destruction of the eye, now largely a thing of the past, with the bright prospect of a sure, safe and speedy recovery.

Before closing this article, permit me, by way of illustration, to report a few cases in which I have found cold applications most beneficial:

I.—Miss Katie C., aged 24; a saleslady in a dry-goods store in a neighboring city. Says she cannot keep her situation on account of the red appearance of her eyes, which are subject to constantly recurring attacks of inflammation. At times there is a slight blurring of vision, but does not notice any discharge. An examination with the ophthalmoscope showed a healthy normal fundus. The conjunctiva, both ocular and palpebral, was considerably congested; in fact, the eyes looked as though she had caught cold which had settled there. Finding a condition of farsightedness, and believing that the eyes were constantly under a strained and unnatural condition sufficient to produce the redness, of which she mostly complained, I advised the use of glasses (+·6 D). A week later she returned with eyes stronger and much relieved, but redness still quite apparent. In addition to her constant wearing of glasses, I now advised methodical douching of the eye with cold water three minutes at a time and four times a day. Six months later I met her on the street in Albany, and, enquiring about her eyes, she informed me that, although the glasses helped her and she was wearing them constantly, yet she had experienced the greatest relief and comfort from the cold-water douche.

I believe that this case illustrates many others where, after removing the exciting cause of inflammation, the passive congestion remaining needed such stimulation as the cold-water douche affords. In all forms of inflamed lids, from that condition in which the chief symptom is the red appearance of the edges, to that condition in which there are scabs and a chronic discharge, probably complicated with conjunctivitis, we find the effect of cold very striking. My second case will afford an illustration of this.

II.—Willie G., aged 7; good health and of good family; was brought to me for the relief of an attack of phlyctenular conjunctivitis, complicated with a chronic condition of blepharitis, or inflamed lids. His parents informed me that he was subject to these attacks, but this time it had become unusually severe. A few days previously a wash and also hot applications had been advised by the family physician. In place of improvement, he had been growing worse, and now his anxious parents had been advised to consult a specialist. Together with the usual treatment in such cases, I insisted on the methodical application of cold, under which he rapidly improved. Pain, heat and swelling soon subsided, and he could open his eyes and face the light again, all previous attempts having been both painful and almost impossible.

Finally, there are a large class of cases of purulent ophthalmia, due to a variety of causes, in which I believe specialists generally hold that cold application is not only a serviceable remedy, but absolutely necessary, if the diseased eye is to be saved. The following case illustrates this class:

III.—J. H., aged 21, of excellent health and good habits, while at home from college during the summer of 1884, contracted a severe form of diphtheritic ophthalmia, first of the right eye, and later passing over to that of the other. I was called to see him within twelve hours from the commencement of the attack, and immediately notified the family of the severity of the case and the necessity for prompt, energetic treatment. There was no history of an exposure, nor did an examination show the presence of any gonorrhœal or gleety discharge. On the afternoon previous to the morning when I made my first visit he had been riding in our city park, and on returning home almost immediately complained of his eye. Two nurses were obtained at once, and to the hot, swollen, infiltrated lids and eye-ball, ice compresses were employed continuously day and night in the manner previously described. This, with the use every fifteen minutes of a boracic acid cleansing solution, was the only local treatment for the first five or six days. During the third night the diphtheritic membrane passed over and infiltrated the cornea of the right eye, which at that time was lost, while the left became simultaneously affected. Consultation with Dr. Knapp, of New York city, was now obtained, and arrangements were made for the more careful and perfect carrying out of the ice applications, by my own withdrawal from private practice for a week and giving the case personal supervision. Dr. A. J. Blessing, the present house physician of St. Peter's Hospital, by remaining some time at the patient's home, kindly assisted me in the care of this case. I am quite certain this left eye was saved only by the methodical and faithful application of ice compresses, together with the careful cleansing every few minutes day and night.

In concluding this paper, I might add that the application of the cold-water douche or ice compresses does not interfere with any other remedies which one might desire to employ, but, on the contrary, most local remedies will be materially assisted by their use. What hot water is to the gynecologist of the Emmet school, such an invaluable, safe, quick and pleasant remedy is cold water to local inflammations of this our most precious organ of the senses.

A METHOD FOR DETERMINING AURAL DEFICIENCY.

BY GEORGE O. WILLIAMS, M.D., GREENE, N. Y.
(Albany Medical College, 1866.)

[FOR ALBANY MEDICAL ANNALS.]

A "C" tuning fork is used.

The unit is the time in seconds that its tone is heard by a normal ear when the tips of the fork are held at the margin of the concha.

The average is 36 seconds. Care must be taken that no hairs touch the blades.

The time is taken the second the fork is struck; otherwise an interval is lost while carrying the fork to its position.

The patient is instructed to say "now" when the tone becomes inaudible.

Tones are taken at concha at 3, 6 and 12 inches.

Although the procedure may seem complicated, less time is actually consumed by the examiner with this than with the watch, and I think greater accuracy is attained.

The subjoined table, copied from case record, exhibits the tones at the different distances and also a comparison with the hearing distance by the watch.

Patient.	Ear.	Time in Seconds.				
		Concha.	Three inches.	Six inches.	Twelve inches.	Distance by the Watch.
S. G. R., age 66..	Right,	37	18	5	3	Normal.
	Left..	37	10	5	3	
S. M., age 58.....	Right,	37	12	6	3	48–48
	Left..	32	6	0	0	32–48
O. W., age 57....	Right,	25	12	5	0	36–48
	Left..	20	7	0	0	10–48
F. S., age 37.....	Right,	10	0	0	0	0–48
	Left..	32	8	0	0	28–48
S. H. age 19......	Right,	22	8	0	0	28–48
	Left..	8	0	0	0	6–48

[It strikes us that the method proposed above by our correspondent is of value for the approximate determination of aural deficiency, but it must be borne in mind that the duration of the tone of a tuning fork depends not only on the force of the blow, but on its direction, the part of the fork struck, and the character of the surface upon, or by, which it is struck. The duration of tone of different forks of the same pitch varies, because of differences in their material, temper, size and shape. Even with the same fork, no two strokes will give absolutely the same duration of vibration, although the blows may be given with the utmost care. After long use a fork not only changes in pitch, but the duration of its vibration is often found to have decreased. The duration of tone is longer in forks of lower pitch; *e. g.*, in middle "C" fork longer than in upper "C."

"The Diagnostic Value of the Tuning Fork in Diseases of the Ear" is the title of a very instructive paper read before the Medical Society of the County of Albany by Dr. T. F. C. Van Allen, of Albany, and printed in the ALBANY MEDICAL ANNALS, June, 1885. In that contribution it was shown that the means of comparison between aerial conduction and bone conduction of sound is the special service rendered by the tuning fork to otology.—ED.]

EXTRACTS FROM CORRESPONDENCE.

ANTISEPTIC SURGERY IN BERLIN.

LAUSANNE, SWITZERLAND, *October* 9, 1886.

My Dear Doctor:

* * As I could not find very much to do in Berlin, I went to Vienna, August 1, and remained there a month in the lying-in hospital, but had very little to do, as there was a great number of students there, mostly Russian and American. I finally made up my mind to come over here and perfect my French, which I have been studying at spare moments for some time. I have been here a month, and have given myself up to the study of the language. * *

I am sorry that I have not even my notes with me, and will be obliged to depend entirely upon my memory. I saw several operations in Berlin, and they differ very little on the principal points of the antiseptic methods and dressings, though they all agree on thorough disinfection. In these, and in all important operations, they insist upon thoroughly disinfecting the room prior to the operations. Some use carbolic acid spray and others the bichloride or other good disinfectant, or even both of them. Some go so far as to have only marble, glass or porcelain articles in the room or in use. The patient must have been previously bathed and every part of the body and every article of clothing thoroughly disinfected before being brought into the room. There the parts around the operation are again thoroughly scrubbed with soap (surgical) and afterward again with carbolic solution or bichloride. The operator and his assistants must pay the same attention to their own persons and clothing as is paid to the patient. They use no *sponges*, but small pieces of very soft light cloth (like that used for plaster bandages, only very soft.) This is kept ready in a glass jar thoroughly permeated with disinfectants, and is only handled by the operators and only used once. Spectators are kept at a certain distance, and students from the dissecting and pathological rooms are not admitted. The wound is thoroughly washed out with a strong disinfecting solution, and a favorite method is to first use a strong solution of zinc chloride to thoroughly stop every particle of blood, and then a five-per-cent. solution of carbolic acid or the sublimate solution. Lastly, the wound is by most operators treated with iodoform-ether or powder, the ether being the favorite. They do not all agree about the manner of drainage Though most of them use drainage tubes, some only use soft tampons of the light bandage "mull," which they thoroughly saturate with the iodoform-ether. They do not all use exactly the same methods of putting on the bandages, but they all agree in using a great amount of antiseptic dressing cotton, the impermeable gauze and a very large amount of the soft mull bandage, the outer layer of which is either saturated in a salicylic acid solution or more commonly a starch paste and put on wet, so that it makes a bandage quite stiff and hard and perfectly impermeable by air, as the principal object seems to be to keep air from the wound, and what air can get in must pass through all this disinfecting material. Whether the tampon or the drainage tube is used, the bandage is left alone till it is no longer able to keep the wound pure and free from any smell whatever. I cannot say as to what the rule is for leaving in a drainage tube; I think there is none, but that it depends upon the rapidity of healing in each individual case. The principal thing I have learned about the drainage tube is that very many operators use them too long, and they then do more harm than good, by communicating too freely between the wound and the outside air and undoing all the benefits of the antiseptic bandage. With good drainage the bandage may be left on longer perhaps, but then all the discharged material must be absorbed by the absorbent overband that protects the end of the tube. I have seen the bands left on for six or eight days, both with and without drainage tubes, and then, when taken off could smell nothing but the iodoform and other disinfectants. The last operation I saw was in Prof. Nussbaum's clinic. It was a hard, stinking breast cancer as large as a child's head, and extended throughout the whole axillary space. I was interested in the operation, because Prof. Nussbaum is one of the best operators in Europe, and one of the most thorough Listerians I have ever seen operate. I saw the wound, which was one of the largest I ever saw, nicely closed and bandaged with drainage tube and all, and the patient appeared to be in good spirits after the operation. They use chloroform entirely for anæsthesia in Germany, and it is not so unpleasant as ether. I did not stay long enough in the city to see the result of the operation or to see the wound dressed the second time. The band was to be left on several days, unless there was evidence that all was not right with the wound.

I am afraid I shall occupy too much of your valuable space with my long letter and give you nothing worth your reading. I shall go to Strasburg in a few days, and expect to spend the winter there. As soon as I can get my note-books and find out any new points I will send them to you. * *

Hoping you are enjoying a prosperous season at the college, I remain,
Most sincerely yours,
J. W. Poucher [A. M. C., '83].

European Medical Study.

Heidelberg, Germany, *October* 1, 1886.

Editor Albany Medical Annals:

At last, after years of hard trying, I have reached this much-heard-of land of Germany. I arrived here in Heidelberg about three weeks ago, and have been at work on the language, also attending the clinics daily. The one of most interest to me is the surgical clinic of Prof. Czerny; this is really a good clinic. To-day I saw an operation for what he calls extirpation of the rectum. He removed about two inches of the lower end of the bowel, which was cancerous. I saw another for the removal of a cancer from the right breast and the axillary glands, also the thyroid from the same patient; one for the removal of a cancerous growth from the scrotum, and one or two smaller operations. What struck me most in these operations is the way in which they are done. The surgeons and assistants look more like butchers than any thing else, and the operating room looks like a slaughter house. All the slops, wash-water, etc., are turned upon the stone floor, to find their way out through drains.

I have concluded to go on directly to Vienna, for the reason that I cannot work here to advantage. I can really work only in the pathological anatomy laboratory of Prof. Arnold, and can not work up the surgical diseases of women at all, so I think it best to go to Vienna and study there a year at least. I am doing quite well on the language, and by the 20th will be able to get most of the lectures. While at Vienna I shall keep up my study of German. Prof. Toma has left here, and his place is filled by a younger man, and the students say that he is not as good as Toma. I wish to do some work on anatomy and pathological anatomy, but do not think it best to spend my whole time on them, as I wish to do some work in other branches, mostly the surgical diseases of women, which are not taught to advantage here in Heidelberg, from a lack of material, also of students to study it. One thing in the clinic here which looks strange to me is that when patients come in for operation, if they are able, they walk up to the table, take off *all* their clothes, and get upon the block, no matter how simple or where the operation is. They use chloroform in every operation. Prof. Czerny says he never uses ether. * *

My trip from Albany to Heidelberg was a very pleasant one. I landed at Antwerp, and came by easy stages to this place. * *

I remain, Very truly yours,

J. A. Moore [A. M. C., '80].

Napthaline.—M. Bouchard has induced cataract in rabbits by introducing into the digestive canal a daily dose of naphthaline equal to 1-1000 of the animal's weight.—*N. Y. Med. Abstract.*

CIRCUMCISION AT NINETY YEARS OF AGE UNDER COCAINE ANÆSTHESIA.

BY WILLIAM STEVENS, M.D., NEW YORK.
(Albany Medical College, 1875.)

In the imagination a few operations like the following may have occurred, but as far as recorded instances of the kind are concerned, there are none, I believe. In the first place, a subject is required possessing age, liberal scientific views, sound mind and excellent health. The subject of this sketch is a gentleman possessing all these requisites, with the chief requisite necessitating the operation for phimosis. His recent life has shown remarkable strength of mind and body. Naturally jovial, and quite delighted to impart the knowledge he possesses regarding the earlier history of this city, he can dilate upon its growth, commercially, financially and politically.

He has suffered severely at times during micturition—from the prepuce adhering to and about the meatus urinarius; the penis was usually with the preputial folds included drawn down at least one-third and frequently one-half an inch below the abdominal surface of the surrounding pubes; the pain was necessarily mischievous, from irritation, during micturition; the preputial adherent folds about the meatus caused a divided and frequently a spray-like stream, which now and then—say every six or eight weeks—would cause a "spell" that frequently lasted several days; recently one of these "spells" became so troublesome I was called in haste, and quickly decided upon the operation of circumcision. The gentleman's age being considered, and feeling that three heads are better than one, I called Dr. William M. McLaury as counsel in the case, and invited Dr. M. Josiah Roberts to perform the operation, which was beautifully done, and the patient is at present—two months after the operation—in fine condition, with a splendid chance of a much longer life, without further inconvience from the penis that should have been treated in like manner just ninety years and ten days before.

Only a local anæsthetic was used in this operation. A two per centum solution of hydrochlorate of cocaine was hypodermically injected into the preputial folds, anterior to the rubber-cord bandaging at the base of the penis; the local anæsthesia being so perfect that telling anecdotes was the manner the patient passed the entire time until the operation was completed, no untoward symptoms occurred, and perfect healing of the parts by first intention, with complete recovery, followed within a few days.—*New York Medical Monthly.*

ABSTRACTA.

Experimental Diabetes.—The usual experiments are successful only when the liver contains glycogen. Mering, of Strasburg, finds that a dose of one grain of phloridzin ($C_{21}H_{24}O_{10}$, an extract from root-bark of fruit trees) to every thousand grains of body weight, in the case of dogs, produced ten per cent. of grape sugar in the urine, irrespective of the liver's containing glycogen. By increasing the dose the sugar reached fifteen per cent., and the animals were well and sprightly. The quantity of sugar in the urine depended on the amount of phloridzin, but this dependence ceased to hold good if the animal had food—flesh or bread. Curare in hungered animals caused no glycosuria; but a dog, after fasting three weeks, after a dose of phloridzin, had eight per cent. of sugar in its urine.

Mering rendered the liver functionless by phosphorus poisoning, and sugar persisted in the urine. In geese, after removal of the liver, severe glycosuria persisted. The liver of a dog suffering severe phloridzin glycosuria gave but six grains of glycogen —very little.

The amount of sugar in the blood more than once showed a diminution, although there was ten to fifteen per cent. of sugar in the urine. This differs remarkably from what has been found in other cases of experimental diabetes. For true diabetes, the records vary.

Mering believes that the cause of diabetes is probably an alteration in the *kidneys.* Or one can imagine an alteration in the blood itself, so that the sugar is not retained as in health, but passes into the urine.—*Medical Chronicle,* Manchester, Eng., Sept., 1886.

Sanitation in Street Paving.—At the fourteenth annual meeting of the American Public Health Association in Toronto, October 5–8, 1886, Dr. J. T. Reeve read a paper by Dr. George Baird on "Sanitation in Street Paving." The macadam road, the cobble pavement, the wood pavement in its various forms and the granite pavement had been found more or less objectionable from a sanitary point of view. The macadam, with its rapidly worn surface and its clouds of dust, carrying disease germs in them; the cobble pavement, with its noise and innumerable pockets, furnishing lodging places for decaying animal and vegetable matters; the wooden pavement, decaying in a few years, and absorbing urine of horses and foul liquids of all kinds which were pressed on its surface, and the granite, with its noise far exceeding the cobble, its slippery surface when worn, and its open crevices between the blocks, permitting liquids of all kinds to pass down and pollute the street surface beneath, were each and all of them objectional and subject to adverse criticism. Wheeling claimed that a material which was free from these objections had been introduced into that city. The material was the vitrified paving block manufactured by a firm in New Cumberland, West Virginia. This block was an oblong truncated wedge 9 inches long, 4$\frac{3}{4}$ inches wide, 3 1-16 inches on one edge and 2 12-16 inches on the other. It was composed of fire-clay, from ore and silica fused to a homogeneous mass. When the street was properly graded and rolled, the blocks were laid in three or more inches of sand, the broad and narrow edges turned upwards in alternate rows and the joints broken as in first-class brick work. The spaces between the blocks were crushed full of finely screened gravel, and paving cement pressed on this until they are made completely water-tight. Over the surface of the pavement pitch was pressed and a layer of sand one-half inch thick was spread. A roller was passed backwards and forwards over the pavement until all the blocks were firmly settled in their places and the entire surface formed a continuous uniform plane. The advantages of this pavement were the antiseptic properties of the pitch on its surface and between the blocks; the providing of a water-tight cover for the surface of the street, preventing the passage of foul liquid to the surface beneath, and also furnishing a dry foundation; the absence of depressions in which animal and vegetable matters could lodge and decompose; the ease and economy in cleaning it; its not absorbing any foul liquids; its freedom from noise and its not being affected by frost or heat. The life of the pavement was without limit, a renewal of the surface coating of pitch and sand when worn off at a cost of one cent per square yard preventing all wear of the block. The cost was not more than cobble; much less than wood; less than one-half that of asphalt, and not one-third that of granite. The pavement, from a sanitary point of view, was much superior to any of the present in use.

Ice in the Sick Room.—A saucerful of shaved ice may be preserved for 24 hours with the thermometer in the room at 90° F. if the following precautions are observed : Put the saucer containing the ice in a soup plate and cover it with another. Place the soup plates thus arranged on a good, heavy pillow, and cover with another pillow, pressing the pillows so that the plates are completely embedded in them. An old jack-plane set deep is a most excellent thing with which to shave ice. It should be turned bottom upward and the ice shoved backward and forward over the cutter.—*St. Louis Medical and Surgical Journal.*

ALBANY MEDICAL ANNALS:

A Journal of the Medical Society of the County of Albany.

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Vol. VII. DECEMBER, 1886. No. 12.

FAIRFIELD MEDICAL COLLEGE.

The following excerpt from the alumni address before the alumni of the Medical Department of Syracuse University, by Dr. Alfred Mercer, professor of clinical and minor surgery, throws some new historic light upon the early medical history of our vicinity, and especially that of the Fairfield Medical College. For twenty-five years of the early part of this century this school, to which some of the older of our profession here owe their diplomas, held the highest position as a seat of instruction, a fact which lends a curious interest to it, situated as it was so remote from centers of population. The size of its classes may be seen from the fact that it matriculated over 3,000 students and graduated between 500 and 600 of them.

Geneva Medical College and the Albany Medical College may be regarded as in some sense the progeny of old Fairfield, both coming into being at nearly the same time and near her demise, her faculty being divided between them. Dr. Mercer shows Geneva to have been the first born, though, in the Report of the Illinois State Board of Health, 1839 is given as the year of her organization, which would make Albany the elder sister by one year. Albany, however, owes its paternity (if the similie is not carried too far in the use of the term) to the courses in anatomical instruction which, for eighteen years before, had been carried on by Dr. Alden March. Geneva Medical College maintained its existence, in its rural village, until 1872, when it merged into the College of Medicine of Syracuse University.

> As early as 1803 a literary academy was established at Fairfield, an obscure out-of the.way village of two hundred or three hundred inhabitants, situated eight or ten miles north of Little Falls, in Herkimer county,

just on the border line of civilization and the wilderness of the Adirondacks. This may have formed a nucleus for the future medical college, of which it was once the famous seat, though a strange place for an institution of medical learning. The first medical instruction given at Fairfield in 1809 would seem to have had some connection with this academy, as the medical school was first known as the Academy of Medicine of Fairfield. In 1812 the legislature of the State of New York granted a charter to this embryo medical school, under the name and title of the "College of Physicians and Surgeons of the Western District of the State of New York," known as Fairfield Medical College. It was placed under the direction of a board of trustees, who organized the school the following year with five professorships, which, if not in the beginning, were soon after filled by Joseph White, Westel Willoughby, James Hadley, T. Romeyn Beck (author of Beck's Medical Jurisprudence), and James McNaughton. This was the sixth medical school organized in the United States, and upon whose benches many of the older physicians of this and other states obtained their medical education. Our worthy dean is an illustrious example of the kind of doctors they turned out at Fairfield, and my own beloved and honored preceptor, the late Dr. John F. Whitbeck of Rochester, graduating in the same class, 1835, from whose lips I learned much of Fairfield and its able faculty. Then a medical education was largely obtained by office reading, under the direction of a preceptor, in some country village—there were not many cities then. The more popular, the better the reputation of the village doctor, the more students sought instruction in his office and at the bedside of his patients. He often gave most valuable practical clinical instruction in the village home, and at the farm-house bedside, where every opportunity was afforded of seeing, handling and patiently and critically examining for one's self most of the common forms of disease, the treatment of which constitute the major part of the physician's labors.

These bedside talks of intelligent preceptors I believe are still invaluable to the medical student, familiarizing him with the details of the daily routine of medical practice, teaching the art of prescribing in many particulars which can be taught nowhere else so well—certainly not in the large and crowded amphitheatres of our metropolitan schools, where distance, from the patient, often lends enchantment to the view—although under the guidance of our most gifted and learned clinical teachers. Both have their place in a medical education, but are we not disposed to overrate the one to the neglect of the other? Special, private, hospital instruction, in classes limited to six or eight, may, however, well supply the place of the preceptor's clinic.

I have said Fairfield was a strange place to locate a medical college. Then there were no great highways of travel through the state, no canals, no railroads, not even a well-established through line of stages, no inland cities, and one place for convenience was about as good as another. New York itself scarcely equaled the population of the city of Rochester.

Fairfield Medical College held sway as a popular and flourishing institution for about thirty years, and well served its purpose for its day and generation. But thirty years brought a new generation, with altogether different surroundings; lines of stage coaches had appeared and disappeared, canals and railroads had changed and were changing the whole thought and business of the country, and Fairfield had to yield to the change of surrounding circumstances. The session of 1839 was its last session. In this last session of Fairfield, Prof. Frank H. Hamilton delivered his first course of surgical lectures in a medical school.

Fairfield did a great and good work in the twenty-six years it was a chartered medical college, from 1813 to 1839. During these years 3,018 students matriculated, and 555 of them received the degree of Doctor of Medicine. The first graduating class of the college, 1816, consisted of two members, Sylvester Miller and Horatio Orvis. The 2,463 students who did not graduate no doubt mostly obtained license to practice by passing an examination before the censors of the various county medical societies of the state, which was quite the fashion and style of the times.

Geneva Medical College was chartered in 1834, and the first course of lectures given in 1835, the following gentlemen constituting the faculty of the college: Edward Cutbrish, Willard Parker, of New York, Thomas Spencer, John G. Morgan, Charles B. Coventry, of Utica, and Amos Colman.

The Albany Medical College obtained its charter in 1838, four years later, both proving rivals to Fairfield At the breaking up of the Fairfield school at the close of the session of 1839 and 1840, the faculty found new fields of labor at Albany and Geneva Profs. Beck and McNaughton were elected to chairs in the Albany Medical College, while Profs. Hadley, De Lamater and Hamilton were added to the faculty of the Geneva Medical College, greatly to its advantage, increasing its popularity and classes, rivaling in numbers the classes of some of the older colleges of the sea-board cities. But this prosperity was not to be lasting. The University of Buffalo instituted a medical department in 1846, proving a powerful rival to Geneva. In fact, the United States seems to have been seized by a medical college mania about this time, organizing forty-four new colleges in the thirty years from 1840 to 1870; not that medical colleges do harm, but good, when properly conducted. I do not know that it makes much difference how or where medical knowledge is obtained, so that it is obtained —in a large or small class, in the village office and at the village bedside, or in the college class-room or city hospital. Let the examination for a license to practice be *thorough* and *independent* of the colleges that instruct, and I believe you may multiply medical colleges almost indefinitely to the benefit of the people and the standing of the profession. Geneva Medical College, as such, had an existence of thirty-seven years, from 1835 to 1872, the period of its greatest prosperity being from 1840 to 1850. The largest class was that of 1844, with 106 matriculating students and 47 graduates; the smallest graduating class was four, 1856. During these thirty-seven years the degree of Doctor of Medicine was conferred on 701 students. But the location of a medical college in a village became an obsolete idea, in appreciation of which the faculty took steps toward the removal of the institution to Syracuse.

THE "ANNALS" AND ITS EXCHANGES.

At the close of the year, thinking that it might be of interest to our readers and to the contributors to our pages to know in what esteem the efforts of this journal have been held by the medical press, we append the following list of MEDICAL ANNALS matter which has appeared in other journals during the latter part of 1885 and the year 1886:

"Sponge Tent Remaining in the Uterus Eight Days," by Dr. James P. Boyd, Albany (ANNALS, October, 1885), *Quarterly Epitome*, New York, December, 1885.

"Case of Nasal Polypi," by Dr. W. E. Rogers (ANNALS, October, 1885), *The Physicians' Magazine*, Philadelphia, December, 1885.

"The Bust of Æsculapius" incident, an experience in the office of an Albany physician (ANNALS, November, 1885), *The Medical and Surgical Reporter*, Philadelphia, November 28, and a number of other journals.

"The Practice of Medicine as an Art"—Annual Introductory Address before the Albany Medical College (ANNALS, November, 1885), in part reprinted in the *St. Louis Periscope*, December, 1885.

"Gradual Suspension in Spinal Disease," with illustration, by Dr. C. L. Squire, of Elmira, N. Y. (ANNALS, November, 1885), *American Medical Digest*, New York, December, 1885

"Vaccinal Eruptions and other Abnormalities of Vaccination," by Dr. F. C. Curtis, Albany (ANNALS, January, 1886), *The Epitome*, New York, January, 1886; also an abstract in *Technics*, February 25, 1886

"Fractures in a Cancerous Patient," by Dr. W. H. Hall, of Saratoga ANNALS, January, 1886), *Technics*, Boston, February 25, 1886.

"Blood Measurement," by Dr. S. G. Shanks, Albany (ANNALS, February, 1886), in *The Eptiome*, March, calls out an editorial note: "If it can be decided concerning dog's blood, the question can be settled with reference to several animals whose blood would be as likely to be used as that of a dog. Of course, with regard to the blood of birds, fowls, reptiles, amphibia and fish, the question of distinguishing it from man's blood is not mooted." This is again copied, with the appended note, in the *St. Louis Medical Journal*, April, 1885. Dr. William Hailes, Jr.'s discussion with Dr. Shanks on this matter is printed in *Technics*, April 8.

"Rectal Alimentation, by Dr. W. O. Stillman, Albany (ANNALS, Februruary, 1886), *The Epitome*, March; *The Physicians' and Surgeons' Investigator*, Buffalo, April; *The New York Medical Times*, September, consolidated with an article by Dr. W. Julius Mickle, from *Practitioner*, December, 1885.

"The Spool of the Breast," by Dr. H. V. Hull, Schenectady (ANNALS, February. 1886), *St. Louis Periscope*, February; *California Medical Journal*, Oakland, Cal., April; *The Epitome*, April; *The Medical Record*, New York, May 29.

"Protracted Mechanical Labor, with Subsequent Fatal Diphtheritic Inflammation of the Parturient Canal," by Dr. T. K. Perry, Albany (ANNALS, February, 1886), *The Medical Analectic*, April.

Prof. Maurice Perkins' note on "Saccharini" appears in *The Georgia Eclectic Medical Journal*, Atlanta, for June.

"Fragment of Steel Extracted from the Vitreous Humor with the Electro-Magnet," by Dr, T. R. Pooley, New York (ANNALS, October, 1885), *The New England Medical Gazette*, Boston, May.

"The Accouchement of a Turkish Princess," by Dr. J. A. S. Grant, Cairo, Egypt (ANNALS, May, 1886), *The Medical Record*, New York, June 5; *Northwestern Lancet*, St. Paul, June 1; *The Epitome*, July; *The Medical and Surgical Reporter*, Philadelphia, July 10. *The St. Louis Periscope*, May, says: "* * The description of the accouchement is graphic, but falls short in being too brief. The question of comparative anatomy—but no, we forbear. The line must be drawn somewhere."

"The Antiphlogistic Action of Menthol," by Dr. S. A. Russell, Albany (ANNALS, April), *The Georgia Eclectic Medical Journal*, June; *The New York Medical Record* and the *Therapeutic Gazette*.

"The Bacteria of Disease," with illustrations, by Dr. Henry Hun, Albany (ANNALS, March, 1886), *Scientific American Supplement*, June; *Georgia Eclectic Medical Journal*, May; *Canada Health Journal*, Ottawa, October.

"Treatment of Chronic Gonorrhœa with Zinc Oxide Ointment," by Dr. O. D. Ball, Albany (ANNALS, June, 1886), *Northwestern Lancet*, St. Paul, July 1; *Buffalo Medical and Surgical Journal*, August 1; "Gleet and Stricture," in *The Medical Record*, July 24, is a notice of this same article; also in *The Eastern Medical Journal*, and *Indiana Medical Journal*, Indianapolis, August; *The Medical Herald*, Louisville, Ky., August; *The Epitome*, August; *The Journal of Materia Medica*, New Lebanon, N. Y., August; *Journal of Cutaneous and Venereal Diseases*, New York, October; *Nashville Journal of Medicine and Surgery*, October; *The Medical Summary*, Philadelphia, October.

"Report of Five Cases of Knock-Knee Treated by Macewen's Method," by Dr. S. R. Morrow, Albany (ANNALS, July, 1886), *American Medical Digest*, New York, November.

"The Birth of the Albany Medical College," in *The Medical Record*, November 20, 1886, is from the address of Dr. F. C. Curtis, Albany, entitled "Glimpses of Early Medicine in Albany," published in ANNALS for October.

THE NEGRO is rarely or never myopic. Their only eye trouble is phlyctenular conjunctivitis. They rarely have granular lids. The negro bears surgery remarkably well. Syphilis in the negro is generally very mild. One-half of all negro men have syphilis, and it does not seem to hurt them. Gonorrhœa is easily cured in the male. In the female it does most harm, causing endometritis and sterility. The negresses often have uterine fibroids, but very rarely ovarian tumors. Uterine cancers are very rare, although lacerations of the cervix are very common. Insanity is rare.—*New York Medical Journal.*

BOOK NOTICES.

EIGHTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF ILLINOIS. 8vo, pp. 556. Springfield, Ill., 1886.

This report, the work of the energetic secretary of the board and eminent sanitarian, Dr. John H. Rauch, is a most valuable and interesting volume to those engaged in sanitary work. It is a model report of its kind, filled with statistical information and the well-arranged results of investigations of great practical value and reports on work accomplished and proposed, instead of being padded out, as are too many reports of its kind, with trite essays on hackneyed sanitary topics of no practical value whatever. The report of the State Sanitary Survey and house-to-house inspection is of the greatest interest, and the results accomplished have abundantly compensated for the cost of the work. The death-rate from filth-diseases in Chicago alone was reduced fifteen per cent. last year, and the entire state was generally in a cleaner and healthier condition at the close of 1885 than ever before. The report on "Coast Defences against Asiatic Cholera" is a most useful compilation, and the work done so far in the investigation of the Chicago water-supply and sewage-disposal problem will be of especial interest to chemists.

Space will not admit of an extended review of this admirable report, but no mention of it would be complete without reference to the well-arranged list of medical colleges in the United States and Canada, which contains 124 pages, giving full information concerning every medical college, existing or defunct, from 1765 to 1886. The Illinois State Board of Health has performed a great work, directly and indirectly, in raising the standard of medical education, and this prospectus, which has been regularly revised and published for a number of years, is of the greatest practical value for purposes of reference to officers of medical schools, the censors of medical societies, and others, in determining the character and standing of the different colleges. It has been annually issued as a separate volume and generally sent to all the institutions from which reports have been received. W. G. TUCKER.

PHYSICIAN'S VISITING LIST. (Lindsay & Blakiston.) Thirty-sixth year. 1851–1886.

This Visiting list contains a calendar, table of signs, list of poisons and antidotes, dose tables, in accordance with the sixth revision of the United States Pharmacopœia, Marshall Hall's ready method in asphyxia, lists of new remedies, Sylvester's method for producing artificial respiration, with illustrations; diagram of heart and lungs; the metric system; a new table for calculating the period of utero-gestation; and as new features: disinfectants and disinfecting; examination of urine, prepared by Judson Daland, based upon Prof. James Tyson's "Handbook for Practical Examination of Urine;" list of standard reference books; incompatibles; a cash account. The paper, manufactured expressly for it, is strong and as thin as compatible with safety. A superior pencil, with nickle tip, accompanies each copy. See advertisement.

EXCHANGES, PAMPHLETS, ETC.

The Poultry Monthly, by the issue of six extra editions during the exhibition season, has become a semi-monthly during the most important part of the year, as an edition is issued the first and fifteenth of each month, beginning with November, 1886, withont additional charge for the six extra copies. *The Monthly* is already considered the leading publication of its kind, and the new plan will greatly increase its value to every patron. Subscribe at once, and thus secure the extra copies. Price, $1.25 per year. Ferris Publishing Co., 481 Broadway, Albany, N. Y.

Celerina, Aletris Cordial, Acid Mannate, and Pinus Canadensis (both dark and white). Samples of these goods have been delivered to us by express from the Rio Chemical Co., St. Louis. For description, indications and dose, we refer to our advertising pages.

The Archives of Gynecology, Obstetrics and Pediatrics, New York, will be issued monthly, commencing with January, instead of bi-monthly as heretofore. Leonard & Co., 141 Broadway, New York.

Report of Willis G. Tucker, M.D., Ph.D., Analyst of Drugs, to Woolsey Johnson, M.D., Chairman of the Sanitary Committee of the State Board of Health of New York.

"Surgery of the Pancreas." By N. Senn, M.D., Milwaukee, Wis. Amercan Medical Association.

"Certain Hereditary and Psychical Phenomena in Inebriety." T. D. Crothers, M.D., Hartford, Conn. From *The Alienist and Neurologist*, St. Louis, October, 1886.

"Meconeuropathia." C. H. Hughes, M.D., St. Louis.

Two papers by W. H. Daly, M.D., Pittsburgh, Pa.: 1. "Laryngology and its Cognate Branches in America." 2. "The Simplest and Most Efficient Treatment of Diphtheria."

"Method in Medical Study." By Charles H. May, M.D , Instructor in Ophthalmology, New York Polyclinic, etc. From *New York Medical Journal*, September 18, 1886.

Conference of the American Shipping and Industrial League, Pensacola, Fla., November 10–12, 1886. Address on "Relation of Quarantine to Shipping interests," by Joseph Holt, M.D., President Board of Health of the State of Louisiana.

"Annual Report of the Commissioner of Pensions to the Secretary of the Interior" for the year ended June 30, 1886. Washington: Government Printing Office.

"Inter-State Notification: Its Principles as Demonstrated in the History of Yellow Fever at Biloxi, Harrison Co., Miss., 1886." Extract from Proceedings of Sanitary Conference, State Board of Health, New Orleans, June 2 4, 1886.

"Papers in Penology." By Charles Dudley Warner and others. The New York State Reformatory at Elmira. 1886.

The Interstate Readers; Primary and Intermediate sizes, 32 page, 16mo, 30 cents a year, or $2 for 100 numbers. Grammar school size, 48 pages, quarto, $1.00 a year, or 75 cents in clubs of ten or more. All published monthly and liberally illustrated. Chicago and Boston: The Interstate Publishing Co., 30 Franklin street, Boston.

The Cosmopolitan, Rochester, N. Y. Schlicht & Field, Publishers. Extra large 8vo, illustrated, monthly, 66 double-column pages, with premium, $2.50 a year.

The Columbia Bicycle Calendar for 1887. Pope Manufacturing Co., Boston. Each day of the year is given upon a separate slip with a 'cycling quotation. The calendar is mounted upon heavy board, upon which is executed a representation of Thomas Stevens circumbicycling the globe and a picture of a mounted lady tricycler.

PERSONALS.

—Dr. A. B. Huested, of Albany, N. Y., is about to remove into a more commodious place of business, which, we are glad to know, is largely the result of his increasing prosperity.—*Pharmaceutical Record, New York.*

Dr. Huested's new store, in the Vander Veer building, was opened Monday, December 13. No expense has been spared to make it the most complete drug store in the state. The stock has been greatly increased, and is intended to include all the medicinal agents used, as well as surgical appliances and requisites for the sick-room and toilet.

G. V. Dillenback, Ph.G., who for over six years has been associated with Dr. Huested, is now an active partner in the business, which will be carried on under the name of A. B. Huested & Co.

—Dr. Jacob M. Falk ('84) has returned to Albany, in excellent health and spirits, from the continent, where he devoted his time to special studies on the eye, at Wurtzburg, Vienna and Berlin.

—Dr. R. Whyte ('74), formerly of Ellensbnrg Centre, Clinton county, N. Y., died in Kingman, Kansas, late in September, 1886, of typhoid fever.

—Dr. D. W. Hiscox ('41) died at Pittstown, Rensselaer county, N. Y., August 1, 1885, aged 71. He was considered superior to the majority of country physicians in surgery and obstetrics.

In a practice of over forty years he lost but two cases of confinemement, one being premature, caused by measles, and the other died from exposure and neglect, having only a child ten years old to take care of her.

Dr. Hiscox's widow writes to the ALBANY MEDICAL ANNALS that there is no physician within three miles of the late Dr. Hiscox's office. She would like to sell the property and medical books, etc., left by her late husband. Address or call upon Mrs. E. T. Hiscox, Sixteenth street, near Jacob street, Troy, N.Y.

—Dr. Henry Slack died at his home at Fishkill Landing, in his fifty-sixth year, December 10. He was born at Albany in 1831, and was graduated at Yale, and at the Albany Medical College in 1852, and completed his medical studies in Paris. He began practice in New York city in 1856, where he had been in active practice since. He was chiefly instrumental in founding the Highland Hospital at Matteawan. He was an army surgeon during the War of the Rebellion. He leaves a widow and three children.

—Dr. George T. Stevens, of New York, formerly of Albany, and Professor of Ophthalmology and Otology in the Albany Medical College, contributes to the *New York Medical Journal*, December 4, 1886, an important article entitled "A System of Terms Relating to the Conditions of the Ocular Muscles Known as 'Insufficiencies.'"

OBITUARY.

DR. JOSEPH W. MOORE.

Dr. Joseph W. Moore was born in Troy, N. Y., in 1839. Graduating in Medicine from the Vermont Castleton school at the early age of twenty, he entered upon his professional lifework in Cohoes.

Success had only begun to reward his labors when the war of the rebellion broke out. Within a few days after the fall of Sumpter he received his commission as surgeon in the army, and was on his way to the front. Preferring naval service, he was transferred, at his request, to the Chesapeake flotilla, with which he remained as surgeon until his transfer to the Vermont, of the North Atlantic squadron.

In 1863 he was one of the surgeons of the United States Hospital at Philadelphia, where he remained until 1864, when, having resigned the service, he returned to Cohoes.

Such an experience could not but prove advantageous to a man of his active and ambitious temperament, and gradually acquiring a deserved reputation in his professional field, he was at the time of his death the best known surgeon in his town.

He occupied many positions in both civil and professional life, and filled many posts of honor and trust.

He was well known in the state and county societies, having filled many of their offices, and at death was president of the Union Medical Association of Albany, Saratoga, Rensselaer, Washington and Warren counties.

His literary contributions to medical science were numerous, and many of them may be found in these pages.

His warm heart and genial manners attracted to him many friends, and his social accomplishments rendered him a universal favorite.

On May 9th, in the midst of health, and while at the bedside of a patient, he was stricken with apoplexy, and after a short period of insensibility, passed away from his sorrowing associates to the better land. J. D. FEATHERSTONHAUGH.

DR. JOHN PERDUE GRAY.

Dr. John Perdue Gray, Superintendent of the New York State Lunatic asylum, died of Bright's disease, in that institution, at 2:47 o'clock P. M., November 29. He became unconscious at midnight and remained so until his death. Dr. Gray was shot in the face while sitting in his private office by Henry Remshaw, an insane man, on the evening of March 15, 1882. Remshaw had been the doctor's attendant and Turkish bath manipulator, and the deed was an insane freak, Remshaw becoming possessed of the idea that the doctor absorbed his vitality. The assailant was afterwards adjudged insane and is now in the insane department of the state prison at Auburn. Dr. Gray's escape from instant death was almost miraculous, and although he recovered so far as outward appearance was concerned, he never entirely overcame the effect of the shock to his nervous system. His nasal organs were injured to such an extent as to interfere with his breathing.

He spent considerable time at Thomasville, Ga., last winter for his health and appeared to be benefited, but was only temporarily. July 21, with his daughter and youngest son, Dr. W. E. Ford and wife and John F. Seymour and G. F. Goldthwaite, of New York, he went to Europe. He returned, however, with little improvement in his condition. For several months he was unable to use his hands for writing. He was not able to be present at the last meeting of the board of managers held in the asylum, when the duties of the managers and superintendent and a revision of the laws were considered.

Dr. Gray was born of American parents, August 6, 1825, in Halfmoon, Centre county, Pa. He was educated in the common schools, at Bellefonte Academy and in Dickinson College, in his native state, and in the last-named institution received the degree of A.B. He was graduated in medicine from the University of Pennsylvania in 1848, and immediately became resident physician of the Philadelphia Hospital.

In 1851 he was appointed third assistant physician to Superintendent Amaziah Brigham, of Utica, second assistant in 1852, and first assistant and acting superintendent in 1853, retaining that position until his death. He was appointed medical superintendent of the Michigan State Asylum when it was projected, and originated plans for the new institution at Kalamazoo. In 1854 he succeeded Dr. T. R. Beck as editor of the *American Journal of Insanity.*

Dr. Gray was president of the psychological section of the International Medical Congress in Philadelphia in 1870, and read a paper on mental hygiene on that occasion. He was appointed by the governor as a commissioner for establishing the Willard asylum at Ovid, and the State asylum at Buffalo. Hamilton College conferred the degree of LL.D. upon him, and Dickinson College added that of A. M. He was at one time president of the Medical Society of the State of New York. He was an honorary member of the British Psychological Association, of the Freniatrical Society of Italy, and the Psychological Society of Paris, and the American Archæological Society. He was professor of psychological medicine and jurisprudence in Bellevue Hospital Medical College, and in the Albany Medical College. He has rendered conspicuous service to the state and general governments as an expert in celebrated criminal cases; the last one of importance was that of Guiteau, who killed President

Garfield. He has read papers on various phases of insanity before almost every prominent medical organization in the country. In fact, Dr. Gray did more than any other ten persons to ameliorate the condition of the insane in this country, to improve the modes of treatment, and facilitate the cure of patients that were not incurable. A leader in thought as well as in practice, he has helped to broaden, almost to create, a science and a literature relative to insanity, and to write his name in enduring characters on the history of our public charities. Dr. Gray leaves a widow, who is a daugnter of the late Edmund A. Wetmore, and three children—Dr. John P. Gray, Jr., William and Miss Cornelia Gray.

MEMORIAL MINUTE OF THE FACULTY OF THE ALBANY MEDICAL COLLEGE.

At a meeting of the faculty of the Albany Medical College, held on Monday evening, December 1, the following memorial minute, offered by Dr. Samuel B. Ward, was unanimously adopted:

The faculty of the Albany Medical College, having heard with deep regret of the death of their esteemed and beloved colleague, Dr. John P. Gray, of Utica, desire to place on record their appreciation of the great loss which they have sustained.

Dr. Gray became conneeted with this college in 1876, as professor of psychological medicine. At that time he had had charge of the New York State Lunatic Asylum, at Utica, for twenty two years, and had conducted its affairs with such intelligence, ability and integrity as to give it a world-wide reputation. During the ten years that have since passed, he has remained at the same post, and by adding year after year to his own reputation as a man of science, a teacher, an author, and a medical witness in cases of doubted mental soundness, has reflected additional lustre upon the asylum.

The honors that were showered upon Dr. Gray by institutions of learning and scientific associations furnish the most abundant proof of the high esteem in which he was held both at home and abroad.

As a lecturer he took a comprehensive view of the subject under consideration, and, avoiding all verboseness, he presented to the student a clear, sharp-cut and well-shaded picture, calculated to make a distinct and lasting impression.

As a companion he was always the courteous gentleman, genial and cordial. and commanding for himself the respect which he was always willing to accord to others.

We sincerely mourn the loss sustained by the community, the profession and our own college.

W. G. Tucker, *Registrar*. A. Vander Veer, *Chairman*.

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